

SEQUENCE LISTING

<110> Prayaga, Sudhirdas K
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<120> ENDOZEPINE-LIKE POLYPEPTIDES AND POLYNUCLEOTIDES ENCODING SAME

<130> 15966-575CIP

Li, Li

<140> 10/083,919

<141> 2002-02-27

<150> 60/157,786

<151> 1999-10-05

<150> 60/164,164

<151> 1999-11-09

- <150> 60/174,505
- <151> 2000-01-04
- <150> 60/183,859
- <151> 2000-02-22
- <150> 60/190,740
- <151> 2000-03-20
- <150> 60/191,133
- <151> 2000-03-22
- <150> 60/206,006
- <151> 2000-05-19
- <150> 60/215,684
- <151> 2000-06-30
- <150> 60/219,490
- <151> 2000-07-20
- <150> 60/227,072
- <151> 2000-08-22
- <150> 09/679,460
- <151> 2000-10-04

<150> 09/679,740

<151> 2000-10-05

<150> 60/271,909

<151> 2001-02-27

<160> 202

<170> PatentIn Ver. 2.1

<210> 1

<211> 318

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

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<210> 2

<212> PRT <213> Homo sapiens <220> <221> VARIANT <222> (32) <223> wherein Xaa is any amino acid <400> 2 Asp Arg Val Val Thr Ala Thr Pro Thr Leu His Leu Gln Leu Leu Ala 1 5 10 15 Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Xaa 20 25 30 Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu 35 40 45 Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile 50 55 60 Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala 65 70 75 80 Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr 85 90 95

<211> 107

Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu

100 105

<210> 3

<211> 351

<212> DNA

<213> Homo sapiens

<400> 3

gtataagaca tacagaagga atgeetggag agcagcaaca geecagetge ggeeaceatg 60 teectgeagg etgattttga catggteaca gaagatgtga ggaagetgaa aacaagacea 120 gatgatgaag aactgaaaga actttatggg etttacaaac aagetgtaat tggaaacatt 180 aatattgagt gtteagaaat getagaatta aaaggeaagg eeaaatggga ageacagaac 240 eececaaaaag gattgteaga ggaagatatg atgegtgeet ttatteetaa ageegaagg 300 etgatagaaa aatatggaat ttagaataaa geatatgata aatttteett t 351

<210> 4

<211> 88

<212> PRT

<213> Homo sapiens

<400> 4

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu

20

25

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met

35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys
50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 5

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5

geteacacet gtaateccag catttgggag gecaaggeag geagattatg tgaggteaag 60 agttecagae cagetgteea acatggeaaa acceatetee actaaaaata caaaaattag 120 ceggeatggg tggeatgeag etgtaateae agetgetegg gaggetgagg eggagaatea 180 cttgagetgg gaagaaaaaa aaaaaaaaa aagatgtgea ggtattaage actttaagae 240 caageeagea gatgatgaga tgeggtteet ttaeggeeae tacaaaegag egaetgtagg 300 caacataaag acagaaegge eagggatggt ggaetteaag ggeaaageea agtgggatee 360 ctggaattta gtgaaagggg etgeeaggaa agateeeatg aaagetaaag ettaegteaa 420 aaaagtagaa gagttaaaga aaaaatteag aataegagag actggaattg ttgeeageea 540 tgeetttgte etaaactgag acaatgeet gttttteta eactgtggat ggtgggaact 540

<210> 6

<211> 138

<212> PRT

<213> Homo sapiens

<400> 6

Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Asn

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Arg Cys Ala Gly Ile

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val

Lys Lys Val Glu Glu Leu Lys Lys Phe Arg Ile Arg Glu Thr Gly
115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn

130 135

<210> 7

<211> 310

<212> DNA

<213> Homo sapiens

<400> 7

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<210> 8

<211> 96

<212> PRT

<213> Homo sapiens

<400> 8

Met Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile

<210> 9

<211> 280

<212> DNA

<213> Homo sapiens

<400> 9

accaccatgg cactgcaggc tgaattcgac aaggctgcag aagacgtgag gaagctgcca 60

acaagaccag cagataataa agaactgaaa aaactcgatg gactttacaa acaagctata 120 attggagaca ttaatattga gtatctggga atgctggact ttaagggcaa ggccaaatgc 180 gcagcatgga ccctccaaaa aaggttgtca aaggaagatg caacgagtgt ctctatttct 240 aaggcaaaag agccgataga aaaataggac atttagaata 280

<210> 10

<211> 86

<212> PRT

<213> Homo sapiens

<400> 10

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys

1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly

35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys

<210> 11 <211> 267 <212> DNA <213> Homo sapiens <400> 11 accgcctcca ccacccatg tgccaagtgg agttcgagct gcgcggccct caagcagctg 60 aagggteeeg tgagegatea ggagaagetg etggtetaeg gettgtacaa acaggeeace 120 cagggcgact gcgacatccc cggccctccg gcctcagacg tgagagccag ggccaagtgg 180 gaggettgga gegegaacaa aggggegtee aagatggaeg ecatgagggg etaegeggee 240 aaagtggagg agctgacgaa gaaggaa 267 <210> 12 <211> 89 <212> PRT <213> Homo sapiens <400> 12 Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala 1 5 10 15 Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val 20 25 30

45

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly

40

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser
50 55 60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala 65 70 75 80

Lys Val Glu Glu Leu Thr Lys Lys Glu

85

<210> 13

<211> 481

<212> DNA

<213> Homo sapiens

<400> 13

tettettegt cagetectec actitigees egiageecet catiggegie atetiggaes 60 cecetitigit egigeteeaa geeteecaet tiggeeetigge teteaegiet gaggeeggag 120 ggeeggggat gtegeagteg eeetiggigg eetigtigia caageegtag accageaget 180 teteeetigate geteaeggga eeetiteaget gettgaggge egicaaagete gaacteeaet 240 tiggeacatig ggtggtggag geggteeetig gtgetagaag etiggaggtgg agagttggag 300 tiggetgttae taetegatet eagggggagg agacaggeae gegatgttig tigtitigtea 360 ageacagatt geaageteegg ggteeagegt aaaeeeeaee atgittigge teaeaeggeg 420 cattitetigg ggaggaeeag eegiteaaaaa gegtetagga teeggaaege tigetgtetigg 480 a

<210> 14

<211> 273 <212> DNA

<213> Homo sapiens

<400> 14

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<210> 15

<211> 20

<212> PRT

<213> Homo sapiens

<400> 15

Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp

1 5 10 15

Val Arg Ala Arg

20

<210> 16

<211> 20

<212> PRT

<213> Homo sapiens

<400> 16 Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu 1 5 10 15 Leu Lys Gly Lys 20 <210> 17 <211> 20 <212> PRT <213> Homo sapiens <400> 17 Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp 1 5 10 15 Phe Lys Gly Lys 20 <210> 18 <211> 18 <212> PRT <213> Homo sapiens

<400> 18

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp 1 5 10 15 Phe Lys <210> 19 <211> 20 <212> PRT <213> Homo sapiens <400> 19 Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp 1 5 10 15 Leu Lys Gly Lys 20 <210> 20 <211> 18 <212> PRT <213> Homo sapiens <400> 20 Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp 5 10 15

Leu Lys

<210> 21

<211> 20

<212> PRT

<213> Homo sapiens

<400> 21

Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly Met Leu Asp

1 5 10 15

Phe Lys Gly Lys

20

<210> 22

<211> 1593

<212> DNA

<213> Homo sapiens

<400> 22

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ggaccetgta aaettteaag geetggattt tgggateeta ttggaagata taaatgggat 300 gcttggagtt cactgggtga tatgaccaaa gaggaagcca tgattgcata tgttgaagaa 360 atgaaaaaga ttattgaaac tatgccaatg actgagaaag ttgaagaatt gctgcgtgtc 420 ataggtccat tttatgaaat tgtcgaggac aaaaagagtg gcaggagttc tgatataacc 480 tcagtccgac tggagaaaat ctctaaatgt ttagaagatc ttggtaatgt tctcacttct 540 actccaaacg ccaaaaccgt taatggtaaa gctgaaagca gtgacagtgg agcggagtct 600 gaggaagaag aggcccaaga agaagtgaaa ggagcagaac acagtgataa tgataagaaa 660 atgatgaaga agtcagcaga ccataagaat ttggaagtca ttgtcactaa tggctatgat 720 aaagatgget ttgtteagga tatacagaat gacatteatg ecagttette cetgaatgge 780 agaagcactg aagaagtaaa gcccattgat gaaaacttgg ggcaaactgg aaaatctgct 840 gtttgcattc accaaggtat taatgatgat catgttgaag atgttacagg aattcagcat 900 ttgacaagcg attcagacag tgaagtttac tgtgattcta tggaacaatt tggacaagaa 960 gagtetttag acagetttae gtecaacaat ggaceattte agtattaett gggtggteat 1020 tccagtcaac ccatggaaaa ttctggattt cgtgaagata ttcaagtacc tcctggaaat 1080 ggcaacattg ggaatatgca ggtggttgca gttgaaggaa aaggtgaagt caagcatgga 1140 ggagaagatg gcaggaataa cagcggagca ccacaccggg agaagcgagg cggagaaact 1200 gacgaattet etaatgttag aagaggaaga ggteatagga tgeaacaett gagegaagga 1260 accaagggcc ggcaggtggg aagtggaggt gatggggagc gctgggggctc cgacagaggg 1320 tecegaggea geeteaatga geagategee etegtgetga tgagaetgea ggaggaeatg 1380 cagaatgtcc ttcagagact gcagaaactg gaaacgctga ctgctgcaaa atcatcaaca 1440 tcaacattgc agactgctcc tcagcccacc tcatctcaga gaccatcttg gtggcccttc 1500 gagatgtete etggtgtget aaegtttgee ateatatgge ettttattge aeagtggttg 1560 gtgtatttat actatcaaag aaggagaagg taa 1593

<210> 23

<211> 530

<212> PRT

<213> Homo sapiens

<400> 23												
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Leu Ile Pro	Ala Ası	Arg	Pro	Trp	Asp	Arg	Gly	Gln	His	Trp	Gln	Leu
	20				25					30		
Glu Met Ala	Asp Th	Arg	Ser	Val	His	Glu	Thr	Arg	Phe	Glu	Ala	Ala
35				40					45			
Val Lys Val	Ile Gl	n Ser		Pro	Lys	Asn	Gly		Phe	Gln	Pro	Thr
50			55					60				
3 G3 W. t.		_	-1	_	_	_1	_	_	~3		_,	
Asn Glu Met	Met Let		Pne	Tyr	ser	Pne		гуѕ	GIn	Ala	Thr	
65		70					75					80
Gly Pro Cys	I.vs I.e.	Ser	Δrσ	Pro	Glv	Dhe	ጥጥ	Δan	Pro	Tle	Glv	Δνα
ory rio cyo	8!		9	110	Ory	90	112	пор	110	110	95	nr 9
Tyr Lys Trp	Asp Ala	Trp	Ser	Ser	Leu	Gly	Asp	Met	Thr	Lys	Glu	Glu
	100	_			105	-	_			110		
Ala Met Ile	Ala Tyr	. Val	Glu	Glu	Met	Lys	Lys	Ile	Ile	Glu	Thr	Met
115				120					125			

Tyr	Glu	Ile	Val	Glu	Asp	Lys	Lys	Ser	Gly	Arg	Ser	Ser	Asp	Ile	Thr
145					150					155					160
Ser	Val	Arg	Leu	Glu	Lys	Ile	Ser	Lys	Cys	Leu	Glu	Asp	Leu	Gly	Asn
				165					170					175	
Val	Leu	Thr	Ser	Thr	Pro	Asn	Ala	Lys	Thr	Val	Asn	Gly	Lys	Ala	Glu
			180					185					190		
_	_	_								_					
ser	ser		ser	GIY	Ala	GIu		Glu	Glu	Glu	Glu		Gln	Glu	Glu
		195					200					205			
Val	Lvs	Gly	Δla	Glu	Hiq	Ser	Δen	Δen	Asn	Lve	Twe	Mot	Met	Lvo	Tura
	-10	0_7		014	*****	501	, , o p	ASII	ASP	БуБ	цуз	Mec	Mec	цуѕ	гур
	210					215					220				
	210					215					220				
Ser		Asp	His	Lys	Asn		Glu	Val	Ile	Val		Asn	Gly	Tyr	Asp
Ser 225		Asp	His	Lys	Asn 230		Glu	Val	Ile	Val 235		Asn	Gly	Tyr	Asp 240
		Asp	His	Lys			Glu	Val	Ile			Asn	Gly	Tyr	
225	Ala	Asp			230	Leu				235	Thr				240
225	Ala				230	Leu				235	Thr				240
225	Ala			Val	230	Leu			Asn	235	Thr			Ser	240
225 Lys	Ala Asp		Phe	Val 245	230 Gln	Leu Asp	Ile	Gln	Asn 250	235 Asp	Thr	His	Ala	Ser 255	240 Ser
225 Lys	Ala Asp	Gly	Phe	Val 245	230 Gln	Leu Asp	Ile	Gln	Asn 250	235 Asp	Thr	His	Ala	Ser 255	240 Ser
225 Lys	Ala Asp	Gly	Phe Gly	Val 245	230 Gln	Leu Asp	Ile	Gln Glu	Asn 250	235 Asp	Thr	His	Ala Asp	Ser 255	240 Ser
225 Lys	Ala Asp	Gly	Phe Gly 260	Val 245 Arg	230 Gln Ser	Leu Asp	Ile Glu	Glu 265	Asn 250 Val	235 Asp Lys	Thr Ile Pro	His Ile	Ala Asp 270	Ser 255 Glu	240 Ser

Asp	Asp	His	Val	Glu	Asp	Val	Thr	Gly	Ile	Gln	His	Leu	Thr	Ser	Asp
	290					295					300				
Ser	Asp	Ser	Glu	Val	Tyr	Cys	Asp	Ser	Met	Glu	Gln	Phe	Gly	Gln	Glu
305					310					315					320
Glu	Ser	Leu	Asp	Ser	Phe	Thr	Ser	Asn	Asn	Gly	Pro	Phe	Gln	Tyr	Tyr
				325					330					335	
Leu	Gly	Gly	His	Ser	Ser	Gln	Pro	Met	Glu	Asn	Ser	Gly	Phe	Arg	Glu
			340					345					350		
Asp	Ile	Gln	Val	Pro	Pro	Gly	Asn	Gly	Asn	Ile	Gly	Asn	Met	Gln	Val
		355					360					365			
Val	Ala	Val	Glu	Gly	Lys	Gly	Glu	Val	Lys	His	Gly	Gly	Glu	Asp	Gly
	370					375					380				
Arg	Asn	Asn	Ser	Gly	Ala	Pro	His	Arg	Glu	Lys	Arg	Gly	Gly	Glu	Thr
385					390					395					400
Asp	Glu	Phe	Ser	Asn	Val	Arg	Arg	Gly	Arg	Gly	His	Arg	Met	Gln	His
				405					410					415	
Leu	Ser	Glu	Gly	Thr	Lys	Gly	Arg	Gln	Val	Gly	Ser	Gly	Gly	Asp	Gly
			420					425					430		
Glu	Arg	Trp	Gly	Ser	Asp	Arg	Gly	Ser	Arg	Gly	Ser	Leu	Asn	Glu	Gln

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu
450 455 460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr
465 470 475 480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser

485

490

495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg

530

<210> 24

<211> 17

<212> PRT

<213> Homo sapiens

<400> 24

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp

1

5

10

15

Pro

<210> 25

<211> 273

<212> DNA

<213> Homo sapiens

<400> 25

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<210> 26

<211> 86

<212> PRT

<213> Homo sapiens

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Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu

1

5

10

15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys

20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile

85

<210> 27

<211> 20

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Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

1 5 10 15

Leu Lys Gly Lys

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Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met 50 55 60 Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys 65 70 75 80 Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu 85 90 95 Glu Leu Lys Lys Lys Tyr Gly Ile 100 <210> 30 <211> 20 <212> PRT <213> Homo sapiens <400> 30 Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp 1 5 10 15 Phe Thr Gly Lys

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<211> 1080

<212> DNA

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<210> 32

<211> 359

<212> PRT

<213> Homo sapiens

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			20					25					30		
Leu	Tyr	Lys	Gln	Ala	Thr	Glu	Gly	Pro	Cys	Asn	Met	Pro	Lys	Pro	Gly
		35					40					45			
Val	Phe	Asp	Leu	Ile	Asn	Lys	Ala	Lys	Trp	Asp	Ala	Trp	Asn	Ala	Leu
	50					55					60				
Gly	Ser	Leu	Pro	Lys	Glu	Ala	Ala	Arg	Gln	Asn	Tyr	Val	Asp	Leu	Val
65					70					75					80
Ser	Ser	Leu	Ser	Pro	Ser	Leu	Glu	Ser	Ser	Ser	Gln	Val	Glu	Pro	Gly
				85					90					95	
Thr	Asp	Arg	Lys	Ser	Thr	Gly	Phe	Glu	Thr	Leu	Val	Val	Thr	Ser	Glu
			100					105					110		
Asp	Gly	Ile	Thr	Lys	Ile	Met	Phe	Asn	Arg	Pro	Lys	Lys	Lys	Asn	Ala
		115					120					125			
						-									
Ile	Asn	Thr	Glu	Met	Tyr	His	Glu	Ile	Met	Arg	Ala	Leu	Lys	Ala	Ala
	130					135					140				

Ser Lys Asp	Asp Ser	Ile Il	e Thr	Val	Leu	Thr	Gly	Asn	Gly	Asp	Tyr
145		150				155					160
Tyr Ser Ser	Gly Asn	Asp Le	u Thr	Asn	Phe	Thr	Asp	Ile	Pro	Pro	Gly
	165				170					175	
Gly Val Glu	Glu Lys	Ala Ly	s Asn	Asn	Ala	Val	Leu	Leu	Arg	Glu	Phe
	180			185					190		
Val Gly Cys	Phe Ile	Asp Ph	e Pro	Lys	Pro	Leu	Ile	Ala	Val	Val	Asn
195			200					205			
Gly Pro Ala	Val Gly			Thr	Leu	Leu	_	Leu	Phe	Asp	Ala
210		21	5				220				
***1 m . *1.			m1	-1		1	_		_	•	_
Val Tyr Ala	Ser Asp	_	a Thr	Pne	HIS		Pro	Pne	Ser	His	
225		230				235					240
Gly Gln Ser	Pro Glu	Gly Cy	c Cer	Sar	Ф	Thr	Dho	Dro	Tuc	T10	Mo+
Gry Grn Ser	245	GIY CY	s ser	Ser	250	1111	Pile	PIO	гуѕ	255	Mec
	243				250					233	
Ser Pro Ala	Lvs Ala	Thr Gl	n Met	Leu	Tle	Phe	Glv	Lvs	Lvs	Len	Thr
	260	0-		265			OL I	2,5	270	Jeu	
Ala Gly Glu	Ala Cys	Ala Gl	n Glv	Leu	Val	Thr	Glu	Val	Phe	Pro	Asp
275	-1~	- -	280		_			285	- · ·	= =	- 2-
Ser Thr Phe	Gln Lys	Glu Va	l Trp	Thr	Arg	Leu	Lys	Ala	Phe	Ala	Lys

290

295

300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu

355

<210> 33

<211> 20

<212> PRT

<213> Homo sapiens

<400> 33

Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly Val Phe Asp

1 5 10 15

Leu Ile Asn Lys

<210> 34

<211> 1574

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<223> wherein any n is an a, c, g or t

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<211> 282

<212> PRT

<213> Homo sapiens

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Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His

20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys

35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln
50 55 60

Leu	Leu	Tyr	Leu	Tyr	Ala	Arg	Tyr	Lys	Gln	Val	Lys	Val	Gly	Asn	Cys
65					70					75					80
Asn	Thr	Pro	Lys	Pro	Ser	Phe	Phe	Asp	Phe	Glu	Gly	Lys	Gln	Lys	Trp
				85					90					95	
Glu	Ala	Trp	Lys	Ala	Leu	Gly	Asp	Ser	Ser	Pro	Ser	Gln	Ala	Met	Gln
			100					105					110		
Glu	Tyr	Ile	Ala	Val	Val	Lys	Lys	Leu	Asp	Pro	Gly	Trp	Asn	Pro	Gln
		115					120					125			
Ile	Pro	Glu	Lys	Lys	Gly	Lys	Glu	Ala	Asn	Thr	Gly	Phe	Gly	Gly	Pro
	130					135					140				
Val	Ile	Ser	Ser	Leu	Tyr	His	Glu	Glu	Thr	Ile	Arg	Glu	Glu	Asp	Lys
145					150					155					160
Asn	Ile	Phe	Asp	Tyr	Cys	Arg	Glu	Asn	Asn	Ile	Asp	His	Ile	Thr	Lys
				165					170					175	
Ala	Ile	Lys	Ser	Lys	Asn	Val	Asp	Val	Asn	Val	Lys	Asp	Glu	Glu	Gly
			180					185					190		
Arg	Ala	Leu	Leu	His	Trp	Ala	Cys	Asp	Arg	Gly	His	Lys	Glu	Leu	Val
		195					200					205			

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile Val Glu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu Val Leu Gln Arg His Thr Thr Gly Lys Ala <210> 36 <211> 20 <212> PRT <213> Homo sapiens <400> 36 Gln Val Lys Val Gly Asn Cys Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys

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<221> VARIANT

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<223> wherein Xaa is Leu or Phe
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<222> (20)
<223> wherein Xaa is Lys or Arg
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Gln Ala Thr Xaa Gly Xaa Xaa Xaa Xaa Xaa Pro Gly Met Leu Asp
  1
                  5
                                     10
                                                          15
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Xaa Lys Gly Xaa

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<221> VARIANT
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<220>
<221> VARIANT
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<223> wherein Xaa is Asn or Lys

<222> (8)

<220> <221> VARIANT <222> (9) <223> wherein Xaa is Ile, Leu, Met or Thr <220> <221> VARIANT <222> (10) <223> wherein Xaa is Ser or Pro <220> <221> VARIÁNT <222> (11) <223> wherein Xaa is Tyr, Trp, Lys or Arg <220> <221> VARIANT <222> (13) <223> wherein Xaa is Gly or Arg <220> <221> VARIANT <222> (14) <223> wherein Xaa is Val or Phe <220> <221> VARIANT

<222> (15)

<223> wherein Xaa is Phe or Trp <220> <221> VARIANT <222> (17) <223> wherein Xaa is Phe or Pro <220> <221> VARIANT <222> (18) <223> wherein Xaa is Lys or Ile <220> <221> VARIANT <222> (20) <223> wherein Xaa is Lys or Arg <400> 38 Gln Ala Thr Xaa Gly Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Asp 1 5 10 15 Xaa Xaa Gly Xaa 20 <210> 39 <211> 20

<212> PRT

<213> Homo sapiens <220> <221> VARIANT <222> (6) <223> wherein Xaa is Asp or Pro <220> <221> VARIANT <222> (8) <223> wherein Xaa is Lys, Arg or Asn <220> <221> VARIANT <222> (9) <223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met <220> <221> VARIANT <222> (10) <223> wherein Xaa is any amino acid <220> <221> VARIANT <222> (11) <223> wherein Xaa is Lys or Arg

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<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met
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      or Met
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      or Met
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Gln Ala Thr Glu Gly Xaa Cys Xaa Xaa Xaa Yaa Pro Gly Xaa Xaa Asp

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10

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Xaa Ile Xaa Xaa

20

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<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is Thr, Val or Lys

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<223> wherein Xaa is Val or Ile

<220>

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<223> wherein Xaa is Thr or Ile

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<222> (11) <223> wherein Xaa is Cys, Arg or Lys <220> <221> VARIANT <222> (13) <223> wherein Xaa is Gly, Glu or Ser <220> <221> VARIANT <222> (16) <223> wherein Xaa is Asp or Glu <220> <221> VARIANT <222> (18) <223> wherein Xaa is Thr, Lys or Glu <400> 40 Gln Ala Xaa Xaa Gly Asn Ile Asn Xaa Glu Xaa Pro Xaa Met Leu Xaa 1 5 10 15 Phe Xaa Gly Lys 20

<210> 41

<211> 19

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<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met
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<223> wherein Xaa is any amino acid
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<223> wherein Xaa is any amino acid
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<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met
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<222> (15)
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<223>	wherein Xaa is Asp or Glu
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<223>	wherein Xaa is any amino acid
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<223>	wherein Xaa is any amino acid
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Gln Xa	aa Xaa Xaa Gly Xaa Xaa Asn Xaa Glu Xaa Xaa Xaa Xaa Xaa
1	5 10 15
1	5 10 15
1 Xaa Gl	
	Ly Lys
Xaa Gl	Ly Lys
Xaa Gl <210>	Ly Lys 42 20
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<pre>Xaa Gl <210> <211> <212></pre>	Ly Lys 42 20 PRT
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<223> wherein Xaa is Asp, Asn or Pro <220> <221> VARIANT <222> (7) <223> wherein Xaa is Ile or Cys <220> <221> VARIANT <222> (9) <223> wherein Xaa is Thr, Ile, Met or Leu <220> <221> VARIANT <222> (10) <223> wherein Xaa is any amino acid <220> <221> VARIANT <222> (11) <223> wherein Xaa is Arg or Lys <220> <221> VARIANT <222> (14) <223> wherein Xaa is Met, Val or Phe

<220>

<221> VARIANT <222> (15) <223> wherein Xaa is any amino acid <220> <221> VARIANT <222> (17) <223> wherein Xaa is Phe or Leu <220> <221> VARIANT <222> (18) <223> wherein Xaa is any amino acid <220> <221> VARIANT <222> (20) <223> wherein Xaa is Lys or Arg <400> 42 Gln Ala Thr Val Gly Xaa Xaa Asn Xaa Xaa Xaa Pro Gly Xaa Xaa Asp 1 10 15

Xaa Xaa Gly Xaa

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<210> 43

<211> 20 <212> PRT <213> Homo sapiens <220> <221> VARIANT <222> (7) <223> wherein Xaa is Ile or Cys <220> <221> VARIANT <222> (10) <223> wherein Xaa is any amino acid <220> <221> VARIANT <222> (11) <223> wherein Xaa is any amino acid <220> <221> VARIANT <222> (13) <223> wherein Xaa is Gly or Pro <220> <221> VARIANT <222> (14)

<223> wherein Xaa is Met or Ala

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Gln Ala Thr Val Gly Asp Xaa Asn Ile Xaa Xaa Pro Xaa Xaa Xaa Asp

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15

Xaa Xaa Xaa Xaa

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<210> 44

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<211> 20

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is any amino acid

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<223> wherein Xaa is any amino acid

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<223> wherein Xaa is Asn, Asp or Pro

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<223> wherein Xaa is any amino acid

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<223> wherein Xaa is Gly, Glu or Ser

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Gln Ala Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp

Xaa Xaa Gly Lys

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10

15

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1 5 10 15

Phe Xaa Gly Lys

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<211> 228

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Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp 115 120 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu Val Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys Lys Glu Ala Gly <210> 48 <211> 576 <212> DNA <213> Homo sapiens

<400> 48

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<211> 191

<212> PRT

<213> Homo sapiens

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<400> 49

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Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Ser Pro His

25

Glu Arg Ala Arg Gln Ala Ser Arg Ala Phe Arg Gln Ser Pro Pro Thr 35 40 45

Ser Pro Gln Leu Leu Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala 50 55 60

15

30

Lys Trp Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser Ala Lys Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu Val Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Pro Arg Trp Thr Pro

<211> 294

<210> 50

<212> DNA

<213> Homo sapiens

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<210> 51

<211> 293

<212> DNA

<213> Homo sapiens

<400> 51

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<213> Homo sapiens

<400> 52

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Ala	Val	Ile	Gly	Asn	Ile	Asn	Ile	Glu	Cys	Ser	Glu	Met	Leu	Glu	Leu
		35					40					45			
Lys	Gly	Lys	Ala	Lys	Trp	Glu	Ala	Gln	Asn	Pro	Gln	Lys	Gly	Leu	Ser
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Glu	Glu	Asp	Met	Met	Arg	Ala	Phe	Ile	Ser	Lys	Ala	Glu	Glu	Leu	Ile
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Glu	Lys	Tyr	Gly	Ile											
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Gln	Ala	Asp	Phe	Asp	Glu	Ala	Ala	Glu	Glu	Val	Lys	Lys	Leu	Lys	Thr
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Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys Thr

Arg	Pro	Thr	Asp	Glu	Glu	Leu	Lys	Glu	Leu	Tyr	Gly	Phe	Tyr	Lys	Gln
			20					25					30		
Ala	Thr	Val	Gly	Asp	Ile	Asn	Ile	Glu	Cys	Pro	Gly	Met	Leu	Asp	Leu
		35					40					45			
Lys		Lys	Ala	Lys	Trp		Ala	Trp	Asn	Leu	Lys	Lys	Gly	Ile	Ser
	50					55					60				
•	01														
	GIU	Asp	Ala	Met		Ala	Tyr	Ile	Ser		Ala	Lys	Thr	Met	Val
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Glu	Luc	Tyr	C111	T1.											
oru	цуз	-y-	Gry	85											
				03											
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1				5					10					15	
Thr	Lys	Pro .	Ala	Asp .	Asp	Glu i	Met	Leu	Phe	Ile	Tyr	Ser	His	Tyr	Lys
			20					25					30		

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp 35 40 45 Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly Thr 50 55 60 Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu 65 70 75 Lys Lys Lys Tyr Gly Ile 85 <210> 55 <211> 86 <212> PRT <213> Homo sapiens <400> 55 Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys 1 5 . 10 15 Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys 20 25 30 Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp 35 40 45

	50					55	55 6						60					
Ser	Lys	Glu	Asp	Ala	Met	Lys	Ala	Tyr	Ile	Asp	Lys	Val	Glu	Glu	Leu			
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Lys	Lys	Lys	Tyr	Gly	Ile													
				85														
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Thr	Lys	Pro	Ser	Asp	Glu	Glu	Met	Leu	Phe	Ile	Tyr	Gly	His	Tyr	Lys			
			20					25					30					
Gln	Ala	Thr	Val	Gly	Asp	Ile	Asn	Thr	Glu	Arg	Pro	Gly	Met	Leu	Asp			
												4.5						
		35					40					45						
		35					40					45						
Phe	Thr		Lys	Ala	Lys	Trp		Ala	Trp	Asn	Glu		Lys	Gly	Thr			

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr

Lys Lys Lys Tyr Gly Ile <210> 57 <211> 88 <212> PRT <213> Homo sapiens <400> 57 Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu

Glu	Leu	Ile	Glu	Lys	Tyr	Gly	Ile
-----	-----	-----	-----	-----	-----	-----	-----

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<210> 58

<211> 82

<212> PRT

<213> Homo sapiens

<400> 58

Lys Arg Cys Ala Gly Ile Lys His Phe Lys Thr Lys Pro Ala Asp Asp

5 10 15

Glu Met Arg Phe Leu Tyr Gly His Tyr Lys Arg Ala Thr Val Gly Asn

20 25 30

Ile Lys Thr Glu Arg Pro Gly Met Val Asp Phe Lys Gly Lys Ala Lys

35 40 45

Trp Asp Pro Trp Asn Leu Val Lys Gly Ala Ala Arg Glu Asp Pro Met

50 55 60

Lys Ala Lys Ala Tyr Val Lys Lys Val Glu Glu Leu Lys Lys Lys Phe
65 70 75 80

Arg Ile

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<210> 61

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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Met	Ala	Lys	Pro	Ile	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Arg	His	Gly
1				5					10					15	
Trp	His	Ala	Ala	Val	Ile	Thr	Ala	Ala	Arg	Glu	Ala	Glu	Ala	Glu	Asn
			20					25					30		
His	Leu	Ser	Trp	Glu	Glu	Lys	Lys	Lys	Lys	Lys	Arg	Cys	Ala	Gly	Ile
		35					40					45			
Lys	His	Phe	Lys	Thr	Lys	Pro	Ala	Asp	Asp	Glu	Met	Arg	Phe	Leu	Tyr
	50					55					60				
Gly	His	Tyr	Lys	Arg	Ala	Thr	Val	Gly	Asn	Ile	Lys	Thr	Glu	Arg	Pro
65					70					75					80
Gly	Met	Val	Asp	Phe	Lys	Gly	Lys	Ala	Lys	Trp	Asp	Pro	Trp	Asn	Leu
				85					90				_	95	
Val	Lys	Gly	Ala	Ala	Arg	Glu	Asp	Pro	Met	Lys	Ala	Lys	Ala	Tyr	Val
			100					105		_		-	110	•	
Lys	Lys	Val	Glu	Glu	Leu	Lys	Lys	Lys	Phe	Arg	Ile	Arg	Glu	Thr	Gly

120

Ile Val Ala Ser His Ala Phe Val Leu Asn

115

125

<210> 63 <211> 86 <212> PRT <213> Bos taurus <400> 63 Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys 1 5 10 15 Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys 20 25 30 Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp 35 40 45 Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr 50 55 60 Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu 65 70 75 80 Lys Lys Lys Tyr Gly Ile 85

Page 71

<210> 64

<211> 86

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<212> DNA

<213> Homo sapiens

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<210> 66

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<212> DNA

<213> Homo sapiens

<400> 66

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<210> 67

<211> 258

<212> DNA

<213> Homo sapiens

<400> 67

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<210> 68

<211> 259

<212> DNA

<213> Homo sapiens

<400> 68

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aggagatget gtteatetat ggeeactaca aacaageaac tgtgggegae ataaatacag 120
aaeggeeegg gatgttggae tteaegggea aggeeaagtg ggatgeetgg aatgagetga 180
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<210> 69

<211> 88

<212> PRT

<213> Homo sapiens

<400> 69

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Leu Lys Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met

Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 70

<211> 89

<212> PRT

<213> Homo sapiens

<400> 70

Phe Phe Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys

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Lys Leu Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly
20 25 30

Phe Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly

35 40 45

Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys

50

55

60

Lys Gly Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala 65 70 75 80

Lys Thr Met Val Glu Lys Tyr Gly Ile

85

<210> 71

<211> 85

<212> PRT

<213> Homo sapiens

<400> 71

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Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln
20 25 30

Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu
35 40 45

Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser
50 55 60

Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile

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65
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75

80

Glu Lys Tyr Gly Ile

- <210> 72
- <211> 85
- <212> PRT
- <213> Homo sapiens
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- <223> wherein Xaa is any amino acid
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- <223> wherein Xaa is any amino acid

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Page 79

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Lys	Pro	Thr	Asp	Asp	Glu	Leu	Lys	Glu	Leu	Tyr	Gly	Leu	Tyr	Lys	Gln
			20					25					30		
Ser	Thr	Val	Gly	Asp	Ile	Asn	Ile	Glu	Суѕ	Pro	Gly	Met	Leu	Asp	Leu
		35					40					45			
Lys		Lys	Ala	Lys	Trp		Ala	Trp	Asn	Leu	Lys	Lys	Gly	Leu	Ser
	50					55					60				
•	~ 1	_			_		_								
Lys	GIu	Asp	Ala	Met	Ser	Ala	Tyr	Val	Ser	Lys	Ala	His	Glu	Leu	Ile
٠.															
65					70					75					80
	Lvs	Tyr	Glv	Len	70					75					80
	Lys	Tyr	Gly		70					75					80
	Lys	Tyr	Gly	Leu 85	70					75					80
	Lys	Tyr	Gly		70					75					80
Glu	Lys > 74		Gly		70					75					80
Glu <210			Gly		70					75					80
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Glu <210 <211 <212	> 74 > 96 > PR	T		85	70					75					80
Glu <210 <211 <212	> 74 > 96 > PR > Ho	Tomo s		85	70					75					80
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	. Cys Pro Gly		Lys Gly Lys Ala Lys
50	55	,	60
	Asn Leu Lys	Lys Gly Leu Ser	Thr Glu Asp Ala Thr
65	70	75	80
Ser Ala Tyr Ile	Ser Lys Ala	Lys Glu Leu Ile	Glu Lys Tyr Gly Ile
	85	90	95
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<211> 88			
<212> PRT			
<213> Frog			
<400> 75			
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Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30
Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45
•
Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60
Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80
Glu Leu Ile Glu Lys Tyr Gly Leu
85
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<211> 103
<212> PRT
<213> Duck
<400> 76
Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe
1 5 10 15
Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr Met Val Glu Lys Tyr Gly Ile <210> 77 <211> 87 <212> PRT <213> Homo sapiens <400> 77 Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu

35 40 45

Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu 65 70 75 80

Leu Lys Lys Lys Tyr Gly Ile

85

<210> 78

<211> 274

<212> DNA

<213> Homo sapiens

<400> 78

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<210> 79

<211> 271

<212> DNA

<213> Homo sapiens

<400> 79

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<210> 80

<211> 262

<212> DNA

<213> Homo sapiens

<400> 80

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attgagtate tgggaatget ggaetttaag ggeaaggeea aatgegeage atggaeeete 180
caaaaaaggt tgteaaagga agatgeaacg agtgteteta tttetaagge aaaagageeg 240
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<210> 81

<211> 260

<212> DNA

<213> Homo sapiens

<400> 81

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<210> 82

<211> 86

<212> PRT

<213> Homo sapiens

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Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly

35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys

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Glu Leu Ile Glu Lys

<211> 88 <212> PRT <213> Frog <400> 84 Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys 1 5 10 15 Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu 20 25 30 Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met 35 40 45 Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys 50 55 60 Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His 65 70 75 80 Glu Leu Ile Glu Lys Tyr Gly Leu 85 <210> 85 <211> 103 <212> PRT

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Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr

Met Val Glu Lys Tyr Gly Ile

100

<210> 86

<211> 87

<212> PRT

<213> Homo sapiens <400> 86 Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu 1 5 10 15 Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr 20 25 30 Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu 35 40 45 Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly 50 55 60 Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu 65 70 75 80 Leu Lys Lys Lys Tyr Gly Ile

85

<210> 87

<211> 86

<212> PRT

<213> Homo sapiens

<400> 87

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	20		25			30
						,
Tou Tree to	un Clm Ala	T] - T] -	01		-1 -1 -	
		i iie iie) lle Asr	lle Glu T	yr Leu Gly
,	35		40		45	
Met Leu A	sp Phe Lys	Gly Lys	Ala Lys	Cys Ala	Ala Trp T	hr Leu Gln
50		55			60	
Lys Arg Le	eu Ser Lys	Glu Asp	Ala Thr	Ser Val	Ser Ile S	er Lys Ala
65		70		75		80
Lys Glu Pı	co Ile Glu	Lvs				
-,		_				
	85					
<210> 88						
<211> 530						
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<213> Homo	sapiens					
<400> 88						
Met Phe Gl	n Phe His	Ala Glv	Ser Trn	Glu Ser	Trp Cys Cy	re Cve Cve
1		O1y	-01 11p		TIP CYS CY	
-	5			10		15

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys

	20		25	30
Glu Met Ala	Asp Thr A	rg Ser Val H	is Glu Thr Arg	Phe Glu Ala Ala
35		40		45
			_	
	Ile Gln S			Phe Gln Pro Thr
50		55	60	
Asn Glu Met	Met Leu L	s Phe Tyr S	er Phe Tyr Lys	Gln Ala Thr Glu
65		70	75	80
Gly Pro Cys	Lys Leu S	er Arg Pro G	ly Phe Trp Asp	Pro Ile Gly Arg
	85		90	95
Tyr Lys Trp		p Ser Ser Le	eu Gly Asp Met	Thr Lys Glu Glu
	100	10	05	110
Ala Met Ile	Ala Tur V	ol Glu Glu Me	et Lys Lys Ile	Ile Glu Thr Mot
115	TIEGE TYPE VI	120		125
Pro Met Thr	Glu Lys Va	ıl Glu Glu Le	eu Leu Arg Val	Ile Gly Pro Phe
130		135	140	
Tyr Glu Ile	Val Glu As	p Lys Lys Se	er Gly Arg Ser	Ser Asp Ile Thr
145	15	0	155	160
Ser Val Arg	Leu Glu Ly	s Ile Ser Ly	ys Cys Leu Glu	Asp Leu Gly Asn

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu

Val	Leu	Thr	Ser	Thr	Pro	Asn	Ala	Lys 185	Thr	Val	Asn	Gly	Lys 190	Ala	Glu
Ser	Ser	Asp	Ser	Gly	Ala	Glu	Ser 200	Glu	Glu	Glu	Glu	Ala 205	Gln	Glu	Glu
Val	Lys 210	Gly	Ala	Glu	His	Ser 215	Asp	Asn	Asp	Lys	Lys 220	Met	Met	Lys	Lys
Ser 225	Ala	Asp	His	Lys	Asn 230	Leu	Glu	Val	Ile	Val 235	Thr	Asn	Gly	Tyr	Asp 240
Lys	Asp	Gly	Phe	Val 245	Gln	Asp	Ile	Gln	Asn 250	Asp	Ile	His	Ala	Ser 255	Ser
Ser	Leu	Asn	Gly 260	Arg	Ser	Thr	Glu	Glu 265	Val	Lys	Pro	Ile	Asp 270	Glu	Asn
Leu	Gly	Gln 275	Thr	Gly	Lys	Ser	Ala 280	Val	Cys	Ile	His	Gln 285	Gly	Ile	Asn
Asp	Asp 290	His	Val	Glu	Asp	Val 295	Thr	Gly	Ile	Gln	His 300	Leu	Thr	Ser	Asp

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu

GIU	361	ьеu	Asp	Ser	Pne	IIII	ser	ASI	ASI	GIY	Pro	Pne	GIN	Tyr	Tyr	
				325					330					335		
Leu	Gly	Gly	His	Ser	Ser	Gln	Pro	Met	Glu	Asn	Ser	Gly	Phe	Arg	Glu	
			340					345					350			
Asp	Ile	Gln	Val	Pro	Pro	Gly	Asn	Gly	Asn	Ile	Gly	Asn	Met	Gln	Val	
		355					360					365				
Val	Ala	Val	Glu	Gly	Lys	Gly	Glu	Val	Lys	His	Gly	Gly	Glu	Asp	Gly	
	370					375					380					
Arg	Asn	Asn	Ser	Gly	Ala	Pro	His	Arg	Glu	Lys	Arg	Gly	Gly	Glu	Thr	
385					390					395					400	
Asp	Glu	Phe	Ser	Asn	Val	Arg	Arg	Gly	Arg	Gly	His	Arg	Met	Gln	His	
				405					410					415		
Leu	Ser	Glu	Gly	Thr	Lys	Gly	Arg	Gln	Val	Gly	Ser	Gly	Gly	Asp	Gly	
			420					425					430			
Glu	Arg	Trp	Gly	Ser	Asp	Arg	Gly	Ser	Arg	Gly	Ser	Leu	Asn	Glu	Gln	
		435					440					445				
Ile	Ala	Leu	Val	Leu	Met	Arg	Leu	Gln	Glu	Asp	Met	Gln	Asn	Val	Leu	
	450					455					460					

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg Arg Arg <210> 89 <211> 530 <212> PRT <213> Homo sapiens <400> 89 Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg

Leu Glu	Met	Arg	His	Thr	Arg	Ser	Val	His	Glu	Thr	Arg	Phe	Glu	Ala
	35					40					45			
Ala Val	Lys	Val	Ile	Gln	Ser	Leu	Pro	Lys	Asn	Gly	Ser	Phe	Gln	Pro
50					55					60				
Thr Asn	Glu	Met	Met	Leu	Lys	Phe	Tyr	Ser	Phe	Tyr	Lys	Gln	Ala	Thr
65				70					75					80
Glu Gly	Pro	Cys	Lys	Leu	Ser	Lys	Pro	Gly	Phe	Trp	Asp	Pro	Val	Gly
			85					90					95	
Arg Tyr	Lys	Trp	Asp	Ala	Trp	Ser	Ser	Leu	Gly	Asp	Met	Thr	Lys	Glu
		100					105					110		
Glu Ala	Met	Ile	Ala	Tyr	Val	Glu	Glu	Met	Lys	Lys	Ile	Leu	Glu	Thr
	115					120					125			
Met Pro	Met	Thr	Glu	Lys	Val	Glu	Glu	Leu	Leu	His	Val	Ile	Gly	Pro
130					135					140				
Phe Tyr	Glu	Ile	Val	Glu	Asp	Lys	Lys	Ser	Gly	Arg	Ser	Ser	Asp	Leu
145				150					155					160
Thr Ser	Val	Arg	Leu	Glu	Lys	Ile	Ser	Lys	Cys	Leu	Glu	Asp	Leu	Gly
			165					170					175	
Asn Val 1	Leu .	Ala	Ser	Thr	Pro	Asn	Ala	Lys	Thr	Val	Asn	Gly	Lys	Ala

Glu	Ser	Ser 195	Asp	Ser	Gly	Ala	Glu 200	Ser	Glu	Glu	Glu	Ala 205	Ala	Gln	Glu
Asp	Pro 210	Lys	Arg	Pro	Glu	Pro 215	Arg	Asp	Ser	Asp	Lys 220	Lys	Met	Met	Lys
Lys 225	Ser	Ala	Asp	His	Lys 230	Asn	Leu	Glu	Ile	Ile 235	Val	Thr	Asn	Gly	Tyr 240
Asp	Lys	Asp	Ser	Phe 245	Val	Gln	Gly	Val	Gln 250	Asn	Ser	Ile	His	Thr 255	Ser
Pro :	Ser	Leu	Asn 260	Gly	Arg	Cys	Thr	Glu 265	Glu	Val	Lys	Ser	Val 270	Asp	Glu
Asn 1		Glu 275	Gln	Thr	Gly	Lys	Thr 280	Val	Val	Phe	Val	His 285	Gln	Asp	Val
Asn S	Ser 290	Asp	His	Val	Glu	Asp 295	Ile	Ser	Gly	Ile	Gln 300	His	Leu	Thr	Ser
Asp S	Ser .	Asp	Ser	Glu	Val	Tyr	Cys	Asp	Ser	Met	Glu	Gln	Phe	Gly	Gln

Glu Glu Ser Leu Asp Gly Phe Ile Ser Asn Asn Gly Pro Phe Ser Tyr

325 330 335

Tyr	Leu	GIY	GIĄ	Asn	Pro	Ser	GIn	Pro	Leu	Glu	Ser	Ser	Gly	Phe	Pro	
			340					345					350			
Glu	Ala	Val	Gln	Gly	Leu	Pro	Gly	Asn	Gly	Ser	Pro	Glu	Asp	Met	Gln	
		355					360					365				
Gly	Ala	Val	Val	Glu	Gly	Lys	Gly	Glu	Val	Lys	Arg	Gly	Gly	Glu	Asp	
	370					375					380				-	
Gly	Gly	Ser	Asn	Ser	Gly	Ala	Pro	His	Arg	Glu	Lys	Arq	Ala	Glv	Glu	
385					390					395	•	J		-	400	
Ser	Glu	Glu	Phe	Ser	Asn	Ile	Arq	Arg	Glv	Arg	Glv	His	Ara	Met	Gln	
				405			3	J	410	5	1			415	0111	
									110					413		
His	Len	Ser	Glu	Gly	Ser	Lave	Gl v	7~~	Cln.	17a 1	C1	Com	a 1	G]	2	
		501		CLY	DCI	цуз	Gry		GIII	vai	GIY	ser		GTÀ	Asp	
			420					425					430			
~3		_														
GIY	GIu		Trp	Gly	Ser	Asp	Arg	Gly	Ser	Arg	Gly	Ser	Leu	Asn	Glu	
		435					440					445				
Gln	Ile	Ala	Leu	Val	Leu	Met	Arg	Leu	Gln	Glu	Asp	Met	Gln	Asn	Val	
	450					455					460					
Leu	Gln	Arg	Leu	His	Lys	Leu	Gļu	Met	Leu	Ala	Ala	Ser	Gln	Ala	Lys	
465					470					475					480	

Ser Ser Ala	Leu Gln Th	r Ser Asn (Gln Pro Thr Ser	Pro Arg Pro Ser
	485		490	495
Trp Trp Pro	Phe Glu Me	t Ser Pro (Gly Ala Leu Thi	Phe Ala Ile Ile
!	500	5	505	510
Trp Pro Phe	Ile Ala Gl	n Trp Leu V	/al His Leu Tyr	Tyr Gln Arg Arg
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Arg Arg				
530				
212				
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<213> Homo sa	apiens			
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1	5		10	15
Thr Lys Pro A	Ala Asp As	o Glu Arg M	et Phe Ile Tyr	Ser Arg Cys Lys
	20		25	30
Gln Ala Thr V	/al Hic Ne	n Leu Aen T	hr Clu Tron Doc	Arg Met Leu Asp
	wr mrs As		m Giu iip Pro	
35		40		45

	50)				55	;				60)			
Ala	Lys	Glu	a Asp	Ala	Val	Lys	Ala	. Asp) Ile	. Asn	Lys	Val	Glu	Glu	Arg
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Asn	Lys	Lys	Tyr	Arg	Ile										
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<21	1> 8	7													
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<21	3> H	omo	sapi	ens											
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Met	Ser	Gln	Ala	Glu	Phe	Asp	Lys	Ala	Ala	Glu	Glu	Val	Lys	His	Leu
1				5					10					15	
Lys	Thr	Lys	Pro	Ala	Asp	Glu	Glu	Met	Leu	Phe	Ile	Tyr	Ser	His	Tyr
			20					25					30		
Lys	Gln	Ala	Thr	Val	Gly	Asp	Ile	Asn	Thr	Glu	Arg	Pro	Gly	Met	Leu
		35					40					45			
Asp	Phe	Lys	Gly	Lys	Ala	Lys	Trp	Asp	Ala	Trp	Asn	Glu	Leu	Lys	Gly
	50					55					60				_

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu Lys Lys Lys Tyr Gly Ile <210> 92 <211> 104 <212> PRT <213> Homo sapiens <400> 92 Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu 85 90 95 Glu Leu Lys Lys Lys Tyr Gly Ile 100 <210> 93 <211> 104 <212> PRT <213> Homo sapiens <400> 93 Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly 1 5 10 15 Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His 20 25 30 Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His 35 40 45 Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met 50 55 60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

75
80

85									90	95					
Glu	. Lev	ı Lys	3 Lys	s Lys	. Tyr	Gly	/ Ile	<u> </u>							
<21:	0> 9 1> 3 2> P 3> H	59	sapi	ens											
	0> 9 Arg		Ser	Gln 5	Lys	Asp	Phe	Glu	Asn 10	Ser	Met	Asn	Gln	Val 15	Lys
Leu	Leu	Lys	Lys 20	Asp	Pro	Gly	Asn	Glu 25	Val	Lys	Leu	Lys	Leu 30	Tyr	Ala
Leu	Tyr	Lys 35	Gln	Ala	Thr	Glu	Gly 40	Pro	Cys	Asn	Met	Pro 45	Lys	Pro	Gly
Val	Phe 50	Asp	Leu	Ile	Asn	Lys 55	Ala	Lys	Trp	Asp	Ala 60	Trp	Asn	Ala	Leu
Gly 65	Ser	Leu	Pro	Lys	Glu 70	Ala	Ala	Arg	Gln	Asn 75	Tyr	Val	Asp	Leu	Val 80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

Ser	r S	er	Let	ג Se:	r Pro	o Sei	: Le	ı Glu	ı Ser	Sei	r Sei	Glr	ı Val	Gli	ı Pro	Gly
					8	5				90)				95	
Thi	r A	sp	Arg	J Lys	s Se	Thr	Gly	/ Phe	Glu	Th	Lev	ı Val	. Val	. Thr	Ser	Glu
				100)				105	5				110)	
Asp	G	ly	Ile	Thi	Lys	: Ile	Met	Phe	Asn	Arg	g Pro	Lys	Lys	Lys	Asn	Ala
			115	;				120					125			
Ile			Thr	Glu	Met	Tyr	His	Glu	Ile	Met	Arg	Ala	Leu	Lys	Ala	Ala
	13	30					135					140				
		/S	Asp	Asp	Ser	Ile	Ile	Thr	Val	Leu	Thr	Gly	Asn	Gly	Asp	Tyr
145						150					155					160
_	_															
Tyr	Se	er	Ser	Gly		Asp	Leu	Thr	Asn		Thr	Asp	Ile	Pro	Pro	Gly
					165					170					175	
C1	17-	. 1	01	01	_		_									
GIY	Va	ι⊥	GIU		гÀг	Ala	Lys	Asn		Ala	Val	Leu	Leu	Arg	Glu	Phe
				180					185					190		
Va l	G1	37	Cvc	Dho	Tl.	7	Dl	D	_	_	_					
Val	GI		Cys 195	Pne	iie	Asp	Pne		Lys	Pro	Leu	Ile		Val	Val	Asn
			193					200					205			
Glv	Dr	0 :	λla	Wal	C1	T1.	C	17- 7	m1	_	_		_			
Oly	21		пта	vaı	gīĀ	тте		val	rnr	ьеи	Leu		Ĺeu	Phe	Asp	Ala
	~ 1	J					215					220				
Val	ጥኒታ	y 7	41 a	Ser	λ c ~	71 ~~~	- ו ת	mb	nh -	77.÷	m)- ·	n .	5 1	_	•	
	- y	- •	u	OCI	vəħ	чта	AId	IUL	rne	nlS	ınr	Pro	rne	ser	His	Leu

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met
245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr
260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp
275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys
290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg 305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu

355

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1				5	;				10					15	;
Leu	. Leu	Lys	. Lys	Asp	Pro	Gly	Asn	Glu	Val	Lys	Leu	Lys	Leu	ı Tyr	Ala
			20					25					30		
Leu	Tyr	Lys	Gln	Ala	Thr	Glu	Gly	Pro	Cys	Asn	Met	Pro	Lvs	Pro	Gly
		35					40		-			45			 1
Val	Phe	Asp	Leu	Ile	Asn	Lvs	Ala	Lvs	Tro	Asp	Δla	Trn	Δen	בומ	Leu
	50					- 55		2			60			riza	Lea
Gly	Ser	Leu	Pro	Lvs	Glu	Δla	Δla	Δτα	Gln	λen	Tree	v. l	7 an	T 011	17- 1
65				-1-	70		1114	AI 9	GIII		TYL	vai	Asp	Leu	
					, 0					75					80
Ser	Ser	T.A11	Ser	Pro	Sor	T 011	a1	0		~	~ 3			_	
501	501	Deu	Ser		Ser	Leu	GIU	ser		ser	GIn	Val	GLu		Gly
				85					90					95	
ΩЪ	7	3	-		_,	•	_0								
Int	Asp	Arg		Ser	Thr	GLY	Phe	Glu	Thr	Leu	Val	Val	Thr	Ser	Glu
			100					105					110		
Asp	Gly	Ile	Thr	Lys	Ile	Met	Phe	Asn	Arg	Pro	Lys	Lys	Lys	Asn	Ala
		115					120					125			

Ile	Asn	Thr	Glu	Met	Tyr	His	Glu	ı Ile	e Met	Arg	, Ala	Leu	Lys	Ala	Ala
	130					135	;				140)			
Ser	Lys	Asp	Asp	Ser	· Ile	Ile	Thr	. Val	. Leu	ı Thr	Glv	Asn	Glv	Asp	Tyr
145					150					155			027		
										133					160
Тиг	Sor.	602	. cl	2			_,	_							
TYL	ser	ser	GIY			Leu	Thr	Asn	Phe	Thr	Asp	Ile	Pro	Pro	Gly
				165					170					175	
Gly	Val	Glu	Glu	Lys	Ala	Lys	Asn	Asn	Ala	Val	Leu	Leu	Arg	Glu	Phe
			180					185					190		
Val	Gly	Cys	Phe	Ile	Asp	Phe	Pro	Lys	Pro	Leu	Ile	Ala	Val	Val	Asn
		195					200					205			
												,			
Glv	Pro	Δla	Val	Glv	Tla	802	1757	Th w	T	T	0 1			_	
Gly			vai	Cly	116		vai	IIIL	Leu	Leu	GIY	Leu	Phe	Asp	Ala
	210					215					220				
Val '	Tyr	Ala	Ser	Asp	Arg	Ala	Thr	Phe	His	Thr	Pro	Phe	Ser	His	Leu
225					230					235					240
Gly	Gln	Ser	Pro	Glu	Gly	Cys	Ser	Ser	Tyr	Thr	Phe	Pro	Lys	Ile	Met
				245					250					255	
														222	
Ser I	ro	Δ] <u>-</u>	Luc	- ות	Th∽	C1	Mo+	.	- 1	D 1:	~3	_	_	_	
Ser I	.10			итg	ınr	GIU			тте	Phe	Gly	Lys :	Lys	Leu	Thr
			260					265				:	270		

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe Leu Ser Arg Lys Ser Lys Leu <210> 96 <211> 282 <212> PRT <213> Homo sapiens <400> 96 Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly

Gl	y Gl	u Le	u Se	r Se:	r Gl	y As	p Ası	e Sei	c Gly	/ Glu	ı Val	Glu	Phe	Pro	His
			20	ס				25	5				30)	
Sei	Pro	o Gl	u Ile	e Glu	ı Glı	ı Thi	s Ser	Cys	. Leu	. Ala	Glu	Leu	Phe	Glu	Lys
		3	5				40)				45			
Ala	a Ala	a Ala	a His	Lei	ı Glr	ı Gly	/ Let	ı Ile	Gln	Val	Ala	Ser	Arg	Glu	Gln
	50)				55	5				60				
Leu	Let	туз	Leu	Туг	Ala	Arg	Tyr	Lys	Gln	Val	Lys	Val	Gly	Asn	Cys
65					70)				75					80
Asn	Thr	Pro	Lys	Pro	Ser	Phe	Phe	Asp	Phe	Glu	Gly	Lys	Gln	Lys	Trp
				85					90					95	
Glu	Ala	Trp	Lys	Ala	Leu	Gly	Asp	Ser	Ser	Pro	Ser	Gln	Ala	Met	Gln
			100					105					110		
Glu	Tyr	Ile	Ala	Val	Val	Lys	Lys	Leu	Asp	Pro	Gly	Trp	Asn	Pro	Gln
		115					120					125			
Ile	Pro	Glu	Lys	Lys	Gly	Lys	Glu	Ala	Asn	Thr	Gly	Phe	Gly	Gly	Pro
	130					135					140				
Val	Ile	Ser	Ser	Leu	Tyr	His	Glu	Glu	Thr	Ile	Arg	Glu	Glu	Asp	Lys
145					150					155					160
Asn	Ile	Phe	Asp	Tyr	Cys	Arg	Glu	Asn	Asn	Ile	Asp	His	Ile	Thr	Lys

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly

180 _ 185 190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu 210 215 220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile
225 230 235 240

Val Glu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln
245 250 255

Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu
260 265 270

Val Leu Gln Arg His Thr Thr Gly Lys Ala
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<210> 97

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<223> wherein * is any amino acid or no amino acid
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<221> VARIANT
<222> (151)
<223> wherein * is any amino acid or no amino acid
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Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His
20 25 30
Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys
35 40 45
Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln
50 55 60
Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys
65 70 75 80
Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp
85 90 95

Glu	Ala	Trp	Lys	Ala	Leu	Gly	Asp	Ser	Ser	Pro	Ser	Gln	Ala	Met	Gln
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Glu	Tyr	Ile	Ala	Val	Val	Lys	Lys	Leu	Asp	Pro	Gly	Trp	Asn	Pro	Gln
		115					120					125			
Ile	Pro	Glu	Lys	Lys	Arg	Lys	Arg	Ser	Lys	Tyr	Lys	Val	Trp	Ala	Ser
	130					135					140				
Tyr	Phe	Ser	Ile	Ser	Arg	Asn	His	Gln	Gly	Arg	Asp	Lys	Asn	Ile	Phe
145					150					155					160
Asp	Tyr	Cys	Arg	Glu	Asn	Asn	Ile	Asp	His	Ile	Thr	Lys	Ala	Ile	Lys
				165					170					175	
Ser	Lys	Asn	Val	Asp	Val	Asn	Val	Lys	Asp	Glu	Glu	Gly	Arg	Ala	Leu
			180					185					190		
Leu	His	Trp	Ala	Cys	Asp	Arg	Gly	His	Lys	Glu	Leu	Val	Thr	Val	Leu
		195					200					205			
Leu	Gln	His	Arg	Ala	Asp	Ile	Asn	Cys	Gln	Asp	Asn	Glu	Gly	Gln	Thr
	210					215					220				
Ala	Leu	His	Tyr	Ala	Ser	Ala	Cys	Glu	Phe	Leu	Asp	Ile	Val	Glu	Leu
225					230					235					240

Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln Asp Gly Cys

Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu Val Leu Gln
260 265 270

Arg His Thr Thr Gly Lys Ala

275

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<211> 89

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<213> Homo sapiens

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Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala 1 5 10 15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly

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Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser
50 55 60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala

Lys Val Glu Glu Leu Thr Lys Lys Glu

<210> 99

<211> 104

<212> PRT

<213> Homo sapiens

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Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

Glu Leu Lys Lys Lys Tyr Gly Ile

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Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg

Asn Lys Lys Tyr Arg Ile

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Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu

Lys Lys Val Glu Glu Leu Lys Lys Lys Phe Arg Ile Arg Glu Thr Gly
115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn
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130 135

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Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly
20 25 30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp

45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys
50 55 60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile 85 90 95

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1 5 10 15

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20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met

35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys
50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

Glu Leu Ile Glu Lys Tyr Gly Ile

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<212> PRT

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Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala

Lys Glu Pro Ile Glu Lys

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Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp

Glu	Tyr	Ile	Ala	Val	Val	Lys	Lys	Leu	Asp	Pro	Gly	Trp	Asn	Pro	Gln
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Ile	Pro	Glu	Lvs	Lvs	Glv	Lvs	Glu	Δla	Δαη	Thr	Glv	Dhe	Glv	Glv	Pro
	130		-1-	-1-	1							1110	CLY	GLY	110
	130					135					140				
Val	Ile	Ser	Ser	Leu	Tyr	His	Glu	Glu	Thr	Ile	Arg	Glu	Glu	Asp	Lys
145					150					155					160
Asn	Ile	Phe	Asp	Tyr	Cys	Arq	Glu	Asn	Asn	Ile	gzA	His	Ile	Thr	Lvs
			_	165	-	J			170		_				-2-
				103					170					175	
Ala	Ile	Lys	Ser	Lys	Asn	Val	Asp	Val	Asn	Val	Lys	Asp	Glu	Glu	Gly
			180					185					190		
Arg	Ala	Leu	Leu	His	Trp	Ala	Cys	Asp	Arg	Gly	His	Lys	Glu	Leu	Val
		195					200					205			
m).	••• •	_	_												
Thr	Val	Leu	Leu	GIn	His	Arg	Ala	Asp	Ile	Asn	Cys	Gln	Asp	Asn	Glu
	210					215					220				
Gly	Gln	Thr	Ala	Leu	His	Tyr	Ala	Ser	Ala	Cys	Glu	Phe	Leu	Asp	Ile

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Ser	Ser	Leu	Ser	Pro	Ser	Leu	Glu	Ser	Ser	Ser	Gln	Val	. Glu	ı Pro	Gly
				85					90					95	;
Thr	Asp	Arg	Lys	Ser	Thr	Gly	Phe	Glu	Thr	Leu	Val	Val	Thr	Ser	Glu
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Asp	Gly	Ile	Thr	Lys	Ile	Met	Phe	Asn	Arg	Pro	Lys	Lys	Lys	Asn	Ala
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Ile	Asn	Thr	Glu	Met	Tyr	His	Glu	Ile	Met	Arg	Ala	Leu	Lys	Ala	Ala
	130					135					140				
Ser	Lys	Asp	Asp	Ser	Ile	Ile	Thr	Val	Leu	Thr	Gly	Asn	Gly	Asp	Tyr
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Tyr	Ser	Ser	Gly	Asn	Asp	Leu	Thr	Asn	Phe	Thr	Asp	Ile	Pro	Pro	Gly
				165					170		_			175	2
Gly	Val	Glu	Glu	Lys	Ala	Lys	Asn	Asn	Ala	Val	Leu	Leu	Ara	Glu	Phe
			180	-		-		185					190	o.u	1110
													170		
Val	Gly	Cys	Phe	Ile .	Asp	Phe	Pro	Lvs	Pro	I.A11	Tla	ת ות	Val	Val	200
	•	195					200	275	110	Бец	116		vai	Val	ASII
							200					205			
Glv	Pro	Δ]=	Val.	Gl v	Tla '	°0~	17a 7	տ ե	T	.	~ 1	_	_,	_	_ •
		n±a	val	эту.			val	rnr	ьeu	ьeи		Leu	Phe	Asp	Ala
	210					215					220				

Val	Tyr	Ala	Ser	Asp	Arg	Ala	Thr	Phe	His	Thr	Pro	Phe	Ser	His	Leu
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Gly	Gln	Ser	Pro	Glu	Gly	Cys	Ser	Ser	Tyr	Thr	Phe	Pro	Lys	Ile	Met
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Ser	Pro	Ala	Lys	Ala	Thr	Glu	Met	Leu	Ile	Phe	Gly	Lys	Lys	Leu	Thr
			260					265					270		
Ala	Gly	Glu	Ala	Cys	Ala	Gln	Gly	Leu	Val	Thr	Glu	Val	Phe	Pro	Asp
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Ser	Thr	Phe	Gln	Lys	Glu	Val	Trp	Thr	Arg	Leu	Lys	Ala	Phe	Ala	Lys
	290					295					300				
	Pro	Pro	Asn	Ala	Leu	Arg	Ile	Ser	Lys	Glu	Val	Ile	Arg	Lys	Arg
305					310					315		•			320
Glu	Arg	Glu	Lys	Leu	His	Ala	Val	Asn	Ala	Glu	Glu	Cys	Asn	Val	Leu
				325					330					335	
Gin	GIY	Arg		Leu	Ser	Asp	Glu		Thr	Asn	Ala	Val	Val	Asn	Phe
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Leu Ser Arg Lys Ser Lys Leu

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Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn 260 265 270

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Asp	Asp	His	Val	Glu	Asp	Val	Thr	Gly	Ile	Gln	His	Leu	Thr	Ser	Asp	
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Ser	Asp	Ser	Glu	Val	Tyr	Cys	Asp	Ser	Met	Glu	Gln	Phe	Gly	Gln	Glu	
305					310					315					320	
Glu	Ser	Leu	Asp	Ser	Phe	Thr	Ser	Asn	Asn	Gly	Pro	Phe	Gln	Tyr	Tyr	
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Leu	Gly	Gly	His	Ser	Ser	Gln	Pro	Met	Glu	Asn	Ser	Gly	Phe	Arq	Glu	
			340					345					350			
Asp	Ile	Gln	Val	Pro	Pro	Glv	Asn	Glv	Asn	Ile	Glv	Asn	Met	Gln	Val	
-		355				2	360	1			1	365		-		
Va l	ת ה	Wa I	G3	Cl	T	0 3	01	17- 3	T	77.2	0 3	G 3	~ 3	•	~ 2	
vai	370	Vai	GIU	Gly	пур	375	GIU	Vai	гу	HIS	380 GTA	GIY	GIU	Asp	GIÀ	
Arg 385	Asn	Asn	Ser	Gly	Ala 390	Pro	His	Arg	Glu	Lys 395	Arg	Gly	Gly	Glu	Thr 400	
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Asp	Glu	Phe	Ser	Asn	Val	Arg	Arg	Gly	Arg	Gly	His	Arg	Met	Gln	His	
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Leu Ser G	lu Gly ?	Thr Lys	Gly	Arg	Gln	Val	Gly	Ser	Gly	Gly	Asp	Gly
	420				425					430		
Glu Arg T	op Gly s	Ser Asp	Arg	Gly	Ser	Arg	Gly	Ser	Leu	Asn	Glu	Gln
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Ile Ala Le	eu Val I	Leu Met	Arg	Leu	Gln	Glu	Asp	Met	Gln	Asn	Val	Leu
450			455					460				
Gln Arg Le	eu Gln I	Lys Leu	Glu	Thr	Leu	Thr	Ala	Ala	Lys	Ser	Ser	Thr '
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Ser Thr Le	u Gln 1	Thr Ala	Pro	Gln	Pro	Thr	Ser	Ser	Gln	Arg	Pro	Ser
	4	485				490					495	
Trp Trp Pi	o Phe G	Glu Met	Ser	Pro	Gly	Val	Leu	Thr	Phe	Ala	Ile	Ile
	500				505					510		
Trp Pro Ph	e Ile A	Ala Gln	Trp	Leu	Val	Tyr	Leu	Tyr	Tyr	Gln	Arq	Arq
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530												
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Leu Lys Gly Lys

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Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp

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Leu Lys Gly Lys

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Phe Glu Gly Lys

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Leu Ile Asn Lys

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Phe Thr

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Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

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<213> Sus scrofa

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Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu

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10

15

Arg Pro Gly Ile Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp

20

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<212> PRT

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Arg Pro Gly	Met Le	ı Asp	Phe	Lys	Gly	Lys	Ala	Lys	Trp	Asp	Ala	Trp
	20				25					30		
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Ile Tyr Gly	His Ty	Lys	Gln	Ala	Thr	Val	Gly	Asp	Ile	Asn	Thr	Glu
1	!	;				10					15	
Arg Pro Gly	Met Le	Asp	Phe	Thr	Gly	Lys	Ala	Lys	Trp	Asp	Ala	Trp
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<212> PRT

<213> Anas platyrhynchos

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Leu Tyr Gly Phe Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu

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Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp

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Leu Lys Gly Lys

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<212> PRT

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Phe Lys Gly Lys

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1

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Leu Lys Gly Lys

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<211> 20 <212> PRT

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Leu Lys Gly Lys

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<210> 144

<211> 20

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<213> Sus scrofa

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Leu Lys Gly Lys

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Phe Val Asn Lys

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223> wherein Xaa is any amino acid	
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223> wherein Xaa is any amino acid	
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1 5 10 15	
1 5 10 15	
1 5 10 15 The Xaa Gly Lys	
he Xaa Gly Lys	
he Xaa Gly Lys	
he Xaa Gly Lys	
he Xaa Gly Lys 20	
he Xaa Gly Lys 20 210> 149	
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The Xaa Gly Lys 20 210> 149 211> 89 212> PRT	
The Xaa Gly Lys 20 210> 149 211> 89 212> PRT	
The Xaa Gly Lys 20 210> 149 211> 89 212> PRT 213> Homo sapiens	

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Tyr Gly Leu Tyr	Lys Gln	Ala Thr G	Sln Gly Asp	Cys Asp Ile	Pro Gly
35		40		45	
_	_				
Pro Pro Ala Ser	Asp Val		Arg Ala Lys		Trp Ser
50		55		60	
Alo Aon Ivo Cli	· Nla Cam	Tura Mat 7	Nam 21a Mat	New Classes	
Ala Asn Lys Gly	7 Ala Sel 70	Lys Mec A	rsp Ara Met	arg Gry Tyr	80 80
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Lys Val Glu Glu	ı Leu Thr	Lvs Lvs G	3lu		
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Leu Arg Pro Ala	Pro Pro '	Thr Ala S	Ser Ala Ala	His Ala Gln	Ser Ser
20 Arg 110 Arc			25	30	501 501
2.				50	

Arg	Thr	Ser	Ala	Pro	Ser	Ala	Gln	Arg	Arg	Leu	Pro	Ala	Glu	Pro	Ser
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Trp	Ser	Ser	Ser	Cys	Ala	Ala	Leu	Lys	Gln	Leu	Lys	Gly	Pro	Val	Ser
65					70					75					80
Asp	Gln	Glu	Lys	Leu	Leu	Val	Tyr	Gly	Leu	Tyr	Lys	Gln	Ala	Thr	Gln
				85					90					95	
									,,,					,,	
Gly	Asp	Cys	Asp	Ile	Pro	Gly	Pro	Pro	Ala	Ser	Asp	Val	Arg	Ala	Arg
			100					105					110		
Ala	Lys	Trp	Glu	Ala	Trp	Ser	Ala	Asn	Lys	Gly	Ala	Ser	Lys	Met	Asp
		115					120					125			
				_			_				_	_,	_	_	
Ala	Met	Arg	GIY	Tyr	Ala	Ala	Lys	Val	GIu	GIu	Leu	Thr	Lys	Lys	Glu
	130					135					140				
Val	Gly	Gly	Val	Glu	Arg	Glu	Gln	Arg	Gly	Val	Gln	Asp	Gly	Arg	His
145					150					155					160
a 3	a 1	-		a 3	~ 1	•	~3	~1	- 7		~ 7	~ 3		_	
GIU	GIY	Leu	Arg	GIY	GIn	ser	Gly	GLY	Ala	Asp	GIu	Glu	GTA	Arg	Ala
				165					170					175	

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys Lys Glu Ala Gly <210> 151 <211> 191 <212> PRT <213> Homo sapiens <400> 151 Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Ser Pro His Glu Arg Ala Arg Gln Ala Ser Arg Ala Phe Arg Gln Ser Pro Pro Thr

Ser	Pro	Gln	Leu	Leu	Ala	Pro	Gly	Thr	Ala	Ser	Thr	Thr	Pro	Cys	Ala
	50					55					60				
Lys	Trp	Ser	Ser	Ser	Cys	Ala	Ala	Leu	Lys	Gln	Leu	Lys	Gly	Pro	Val
65					70					75					80
		_	_												
Ser	Asp	Gln	Glu		Leu	Leu	Val	Tyr	Gly	Leu	Tyr	Lys	Gln	Ala	Thr
				85					90					95	
_															
Gln	Gly	Asp		Asp	Ile	Pro	Gly		Pro	Ala	Ser	Asp	Val	Arg	Ala
			100					105					110		
		_			_										
Arg	Ala		Trp	Glu	Ala	Trp		Ala	Lys	Lys	Gly		Ser	Lys	Met
		115					120					125			
			_	~3	_			_				_	_,	_	_
Asp		Met	Arg	GTÀ	Tyr	Ala	Ala	Lys	Val	GIu		Leu	Thr	Lys	Lys
	130					135					140				
a 1	**- 1		0 1	**- 7	~ 1		~1	~3		~ 3	**- 3	~3.		~3	
	vaı	GIÀ	GTÅ	vai		Arg	GIU	Gin	Arg		vaı	GIN	Asp	GIY	
145					150					155					160
	~ 3	~ 1	_	_	~3	3					_				
HIS	GIu	GIY	Leu		GIY	Gln	Ser	GIY		Ala	Asp	GIu	GIu		Ser
				165					170					175	
		_													
Gly	Gly	Arg		Ala	Arg	Thr	Lys	_	Arg	Pro	Arg	Trp		Pro	
			180					185					190		

<210> 152

<211> 687

<212> DNA

<213> Homo sapiens

<400> 152

atggagagac caggagccac ggcggccgcg cttaggcctg ctcacaacct ccgcccggcc 60 ccgcccacag cctccgccg gcacgcgcag tcctcacgaa cgagcgcgc aagcgcacag 120 cgccgccttc cggcagagcc ctcccaccag ccctcagcac cagggaccgc ctccaccac 180 ccatgtgcca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tcccgtggagc 240 gatcaggaga agctgctggt ctacggcttg tacaaacagg ccacccaggg cgactgcgac 300 atccccggcc ctccggcctc agacgtgaga gccagggcca agtgggaggc ttggagcgg 360 aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggagggctg 240 acgaagaagg aagtggggg cgtggagcc gaacaaaggg gcgtgcaaga tggagggct 420 acgaagaagg acggccaaag tggaggagct gaacaaaggg gcgtgcaaga tggacgccat 480 gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgtc caagatggac 540 gccatgaggg gctacgcgg caaagtggag cgcaagatgag gagctgcaga agaaggagct ggggggcgtg 600 gagcgcgaac aaaggggcgt ccaagatgga cgccatgagg ggctacgcgg ccagagtgag 660 gagatgagga agaaggaggc tggctga

<210> 153

<211> 99

<212> PRT

<213> Homo sapiens

<400> 153

Met Cys Gln Val Glu Phe Glu Leu Arg Gly Pro Gln Ala Ala Glu Gly
1 5 10 15

Ser Arg Glu Arg Ser Gly Glu Ala Ala Gly Leu Arg Leu Val Gln Thr

Gly His Pro Gly Arg Leu Arg His Pro Arg Pro Ser Gly Leu Arg Arg
35 40 45

Glu Ser Gln Gly Gln Val Gly Gly Leu Glu Arg Glu Gln Arg Gly Val

50 55

60

Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp 65 70 75 80

Glu Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Ala Arg 85 90 95

Trp Thr Pro

<210> 154

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (61)

<223> wherein Xaa is any amino acid

<400> 154

Met Cys Gln Val Glu Phe Glu Leu Arg Gly Pro Gln Ala Ala Glu Gly
1 5 10 15

Ser Arg Glu Arg Ser Gly Glu Ala Ala Gly Leu Arg Leu Val Gln Thr 20 25 30

Gly His Pro Gly Arg Leu Arg His Pro Arg Pro Ser Gly Leu Arg Arg
35 40 45

Glu Ser Gln Gly Gln Val Gly Gly Leu Glu Arg Glu Xaa Arg Gly Val
50 55 60

Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp
65 70 75 80

Glu Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Ala Arg 85 90 95

Trp Thr Pro

<210> 155

<211> 66

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (25)

<223> wherein Xaa is any amino acid

<400> 155

Met Cys Gln Val Glu Phe Glu Leu Ala His Thr Ala Leu Lys Gln Leu 1 5 10 15

Lys Gly Thr Val Cys Asp Gln Glu Xaa Thr Ala Gly Val Gln Leu Leu 20 25 30

Gln Thr Ala His Pro Glu Arg Leu Gln His Pro Cys Pro Phe Ser Leu 35 40 45

Arg Cys Glu Ser Gln Gly Gln Val Gly Gly Met Glu Cys Glu Gln Arg
50 55 60

Asp Val

<210> 156

<211> 687

<212> DNA

<213> Homo sapiens

<400> 156

atgggagacg caggagccac ggcggccgcg cttaggcctg ctcacaacct ccgcccggcc 60 ccgcccacag cctccgccg gcacgcgcag tcctcacgaa cgagcgcgcc aagcgcacag 120 cgccgccttc cggcagagcc ctcccaccag ccctcagcac cagggaccgc ctccaccacc 180 ccatgtgcca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tcccgtgagc 240 gatcaggaga agctgctggt ctacggcttg tacaaacagg ccacccaggg cgactgcgac 300 atccccggcc ctccagcac agacgtgaga gccagggcca agtgggaggc ttggagcgg 360 aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggaggagctg 420 acgaagaagg aagtggggg cgtggaggc gaacaaaggg gcgtgcaaga tggacgccat 480 gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgtc caagatggac 540

gccatgaggg	gctacgcggc	caaagtggag	gagctgacga	agaaggaagt	ggggggcgtg	600
gagcgcgaac	aaaggggcgt	ccaagatgga	cgccatgagg	ggctacgcgg	ccagagtgag	660
gagatgagga	agaaggaggc	tggctga				687
<210> 157						

<211> 228

<212> PRT

<213> Homo sapiens

<400> 157

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn 1 5 10 15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser 20 25 30

Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser

His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys
50 55 60

Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser 65 70 75 80

Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln 85 90 95

Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg
100 105 110

Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp 115 120 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu 130 135 140

Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His 145 150 155 160

Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala 165 170 175

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu 180 185 190

Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln
195 200 205

Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys 210 220

Lys Glu Ala Gly 225

<210> 158

<211> 87

<212> PRT

<213> Bos taurus

<400> 158

Met Cys Gln Val Glu Phe Glu Met Ala Cys Ala Ala Ile Lys Gln Leu 1 5 10 15

Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Tyr Tyr 20 25 30

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Ala Pro Pro Ala Thr 35 40 45

Asp Leu Lys Ala Lys Ala Lys Trp Glu Ala Trp Asn Glu Asn Lys Gly 50 55 60

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu 65 70 75 80

Leu Lys Lys Asn Glu Ala Gly 85

<210> 159

<211> 87

<212> PRT

<213> Mus musculus

<400> 159

Met Ser Gln Val Glu Phe Glu Met Ala Cys Ala Ser Leu Lys Gln Leu 1 5 10 15

Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Phe Tyr 20 25 30

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Val Pro Pro Ala Thr

40

Asp Val Arg Ala Lys Ala Lys Tyr Glu Ala Trp Met Val Asn Lys Gly 55

45

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu

Leu Lys Lys Glu Pro Cys

35

<210> 160

<211> 87

<212> PRT

<213> Rattus norvegicus

<400> 160

Met Ser Gln Val Glu Phe Glu Met Ala Cys Ala Ser Leu Lys Gln Leu

Lys Gly Pro Leu Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Phe Tyr

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Val Pro Pro Ala Thr

Asp Val Lys Ala Lys Ala Lys Trp Glu Ala Trp Met Val Asn Lys Gly

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu 65 70

Leu Lys Lys Asn Glu Thr Cys

<210> 161

<211> 80

<212> PRT

<213> Callithrix Jacchus

<400> 161

Leu Ala Arg Thr Ala Leu Lys Gln Leu Lys Gly Pro Leu Ser Asp Gln

Asp Lys Leu Leu Tyr Gly Trp Tyr Lys Gln Ala Thr Arg Gly Asp

20 25 30

Cys His Leu Pro Ala Pro Pro Ala Ser Asp Leu Lys Ala Lys Ala Lys 35 40 45

Trp Glu Ala Trp Thr Ala Asn Gln Gly Leu Ser Arg Met Asp Ala Met 50 55 60

Arg Ala Tyr Val Ala Lys Val Glu Glu Leu Thr Arg Lys Glu Ala Gly 65 70 75 80

<210> 162

<211> 59

<212> PRT

<213> Macaca fascicularis

<400> 162

Leu Ala Arg Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Pro

1 10 15

Glu Lys Leu Leu Ile Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp 20 25 30

Cys Gly Ile Pro Ala Pro Pro Ala Ser Asp Val Lys Ala Arg Ala Lys
35 40 45

Trp Glu Ala Trp Ser Ala Asn Lys Gly Val Ser 50 55

<210> 163

<211> 89

<212> PRT

<213> Homo sapiens

<400> 163

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys

1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr 20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro 35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60 Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys 65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala 85

<210> 164

<211> 77

<212> PRT

<213> Homo sapiens

<400> 164

Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys

1 10 15

Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp 20 25 30

Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu 35 40 45

Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly
50 55 60

Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu Val 65 70 75

<210> 165

<211> 330

<212> DNA

<213> Homo sapiens

<400> 165

acagaaggaa tgcctggaga gcagcaacag cccagctgcg gccaccatgt ccctgcaggc 60 tgattttgac atggtcacag aagatgtgag gaagctgaaa acaagaccag atgatgaaga 120 actgaaagaa ctttatgggc tttacaaaca agctgtaatt ggaaacatta atattgagtg 180 ttcagaaatg ctagaattaa aaggcaaggc caaatgggaa gcacagaacc cccaaaaagg 240 attgtcagag gaagatatga tgcgtgcctt tatttctaaa gccgaagagc tgatagaaaa 300

<210> 166

<211> 88

<212> PRT

<213> Homo sapiens

<400> 166

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys
1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu 20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys 50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu 65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile 85

<210> 167

<211> 88

<212> PRT

<213> Mus musculus

<400> 167

Met Ser Leu Gln Ala Asp Phe Asp Gln Ala Ala Gln Asp Val Arg Lys

1 5 10 15

Leu Lys Ser Arg Pro Glu Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu 20 25 30

Tyr Lys Gln Ser Val Ile Gly Asp Ile Asn Ile Ala Cys Pro Ala Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Cys Glu Ala Trp Asn Leu Gln Lys 50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Cys Ala Tyr Ile Ser Lys Ala Arg 70 Glu Leu Ile Glu Lys Tyr Gly Ile 85 <210> 168 <211> 88 <212> PRT <213> laughing frog <400> 168 Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His Glu Leu Ile Glu Lys Tyr Gly Leu <210> 169 <211> 103 <212> PRT <213> Anas platrhynchos <400> 169 Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe 5 Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr 35 40 45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu 50 55 60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly 65 70 75 80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr 85 90 95

Met Val Glu Lys Tyr Gly Ile 100

<210> 170

<211> 87

<212> PRT

<213> Rana ridibunda

<400> 170

Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Leu 1 5 10 15

Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu Tyr
20 25 30

Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu 35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys Gly 50 55 60

Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His Glu 65 70 75 80

Leu Ile Glu Lys Tyr Gly Leu

<210> 171

<211> 86

<212> PRT

<213> Homo sapiens

<400> 171

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys

5

1

10

15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp 35 40 45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu 65 70 75 80

Lys Lys Lys Tyr Gly Ile 85

<210> 172

<211> 89

<212> PRT

<213> Homo sapiens

<400> 172

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Leu Lys

1 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro 35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala 85

<210> 173

<211> 85

<212> PRT

<213> Homo sapiens

<400> 173

Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys
1 10 15

Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
20 25 30

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu 35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys Gly Leu 50 55 60

Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu
65 70 75 80
Ile Glu Lys Tyr Gly
85

<210> 174

<211> 1049

<212> DNA

<213> Homo sapiens

<400> 174

taatgggcgc acaacatata aagatataat ttgtgacaat cacaacataa agtatgggca 60 gcgctgtata gagctataga gcagagattt ttgtatgcta tcaaagctaa atttggatca 120 atttaaacta ggttgttata aatttatgaa gttgattacc tctgtggtaa ccacttaaaaa 180 tttttttaat tttaattttt atttatttt tgagacggag tctcactctg tctctaaaaa 240 aaggtcaaga aaattagaag ggtattaaat gatacactac aaaaaaaaat caatggaata 300 caaaagaagg cagtagtgga ggaaatgagg aacaaaaaatg gtataagaca tacagaagga 360 atgcctggag agcagcaaca gcccagctgc ggccaccatg tccctgcagg ctgattttga 420 catggtcaca gaagatgtga ggaagctgaa aacaagacca gatgatggag aactgaaaga 480 actctatggg ctttacaaac aagctgtaat tggaaacatt aatattgagt gttcagaaat 540 gctagattta aaaggcaaag ccaaatggga agcatggaac ccccaaaaag gattgtcgac 600 ggaagatatg atgcgtgcct ttattctaa agccgaagag ctgatagaaa aatatggaat 660

ttagaataaa gcatatgata aattttcctt tttgaagcct tcataatggt atcatgacca 720
aacatttaga gttaacgctg ttaactctag gtatcatgta tatttttgct attattatga 780
attatactta attagtagta tgctaaaact gcatagttaa ctaaattgta cttgcttaaa 840
ccaggtgtct ttaaaagttc ttttagaaaa gtatttttt tattttata gatttagggg 900
gtacaagtgc agttttgttg catgaacgta tcatgtagtg gtgaagtctg ggctttcagt 960
gtccccatca cccagatagt ctacaattgt gcccaaaagg tacaattgta cattccttac 1020
accttctgtg accatgtcaa aatcagcct

<210> 175

<211> 88

<212> PRT

<213> Homo sapiens

<400> 175

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1 10 15

Leu Lys Thr Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu 20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met 35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Pro Gln Lys 50 55 60

Gly Leu Ser Thr Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile

<210> 176

<211> 89

<212> PRT

<213> Homo sapiens

<400> 176

Leu Gln Glu Asp Phe Glu Ala Ala Glu Lys Val Lys Lys Leu Lys

1

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr 20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro 35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75

Val Glu Glu Leu Ile Ala Lys Tyr Ala 85

5

<210> 177

<211> 85

<212> PRT

<213> Homo sapiens

<400> 177

Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys

1 10 15

Thr Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys 20 25 30

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Asp 35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Pro Gln Lys Gly Leu 50 55 60

Ser Thr Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu 65 70 75 80

Ile Glu Lys Tyr Gly

<210> 178

<211> 297

<212> DNA

<213> Homo sapiens

<400> 178

tcttccttaa ggctgattt gacagggctg cagaagatgt gaggaagctg aaagcaagac 60 cagatgatgg agaactgaaa gaactctatg ggctttacaa acaagcaata gttggagaca 120 ttaatattgc gtgtccagga atgctagatt taaaaggcaa agccaaatgg gaagcatgga 180 acctcaaaaa agggttgtcg acggaagatg cgacgagtgc ctatatttct aaagcaaagg 240 agctgataga aaaatacgga atttagaata cagcatatga ggaattttc ctttga 297

<210> 179

<211> 87

<212> PRT

<213> Homo sapiens

<400> 179

Phe Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu

1 5 10 15

Lys Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr
20 25 30

Lys Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu 35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly 50 55 60

Leu Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu 65 70 75 80

Leu Ile Glu Lys Tyr Gly Ile 85

<210> 180

<211> 89

<212> PRT

<213> Homo sapiens

<400> 180

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro

35 40

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

45

50 55 60

Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala

<210> 181

<211> 85

<212> PRT

<213> Homo sapiens

<400> 181

Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu Lys
1 5 10 15

Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
20 25 30

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp 35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu 50 55 60

Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu 65 70 75 80

Ile Glu Lys Tyr Gly

<210> 182

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(318)

<223> wherein n is a g or t

<400> 182

ttaatattgc tatattagtt ttgcaattga aaaattaagt tccaatagct tcctgctctg 60
taccttctca gtgggctccc aggaatcctt gcaacaactg ccagtatgtc tcaggcgttt 120
gagaaagctg ccaaggatat taagcacctt gagaccaagc cagcagatga tgagaggatg 180
ttcatctaca gccgctgcaa acaagcgact gtgcatgact taaatacaga atggcccagg 240
atgttagacc tcaaaggcaa ggcaaagcag gatgctggna atgagctgaa agacactgcc 300
aaggaagatg ctgtgaaagc tgatatcaac aaagtagaag agcgaaataa aaaatacaga 360
atataagaga ttggatttgg ttgccagcan tgcatttaac ctaaactgat acaatgcctt 420
tttttccc 428

<210> 183

<211> 86

<212> PRT

<213> Homo sapiens

<400> 183

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys 20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp 35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Gly Asn Glu Leu Lys Asp Thr 50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile

<210> 184

<211> 87

<212> PRT

<213> Artificial Sequence

<220>

<400> 184

Met Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu 1 5 10 15

Lys Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr 20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu 35 40 45

Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly 50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu 65 70 75 80

Leu Lys Lys Lys Tyr Gly Ile

<210> 185

<211> 87

<212> PRT

<213> Sus scrofa

<400> 185

Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu

1 5 10 15

Lys Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu 35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly 50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu 65 70 75 80

Leu Lys Lys Tyr Gly Ile 85											
<210> 186											
<211> 86											
<212> PRT											
<213> Canis familiaris											
<400> 186											
Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Lys His Leu Lys 1 5 10 15											
Thr Lys Pro Ala Asp Asp Glu Met Leu Tyr Ile Tyr Ser His Tyr Lys 20 25 30											
Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Leu Leu Asp 35 40 45											
Leu Arg Gly Lys Ala Lys Trp Asp Ala Trp Asn Gln Leu Lys Gly Thr 50 55 60											
Ser Lys Glu Asp Ala Met Lys Ala Tyr Val Asn Lys Val Glu Asp Leu 65 70 75 80											
Lys Lys Lys Tyr Gly Ile 85											
<210> 187											
<211> 86											
<212> PRT											
<213> Bos taurus											
<400> 187											
Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys 1 5 10 15											
Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys 20 25 30											
Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp 35 40 45											
Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr 50 55 60											
Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu 65 70 75 80											

Lys Lys Lys Tyr Gly Ile <210> 188 <211> 86 <212> PRT <213> Sus scrofa <400> 188 Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu Lys Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp 45 Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu Lys Lys Lys Tyr Gly Ile <210> 189 <211> 89 <212> PRT <213> Homo sapiens <400> 189 Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys

Val Glu Glu Leu Ile Ala Lys Tyr Ala 85

<210> 190

<211> 85

<212> PRT

<213> Homo sapiens

<400> 190

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys 20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp 35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Gly Asn Glu Leu Lys Asp Thr 50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg 85

<210> 191

<211> 1979

<212> DNA

<213> Homo sapiens

<400> 191

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accetgacce caccacactg cettgaggta ggaaaaggag geteetcaac cacaacttet 300 gacctcccag ggtgtctgag gcctctaaag agcttagttt gcccctctgg gaagtgaatc 360 ettggettat ggtgeegggg ggaeeetgga ggeeeeetea eaegaagget gettettgea 420 gagtegetea aaagtaggge eecagggete geageageat gggeaeegag aaagaaagee 480 cagageeega etgecagaaa eagtteeagg etgeagtgag egteateeag aacetgeeea 540 agaacggttc ttaccgcccc tcctatgaag agatgctgcg attctacagt tactacaagc 600 aggccaccat ggggccctgc ctggtccccc ggcccgggtt ctgggacccc attggacgat 660 ataagtggga cgcctggaac agtctgggca agatgagcag ggaggaggcc atgtctgcct 720 acatcactga aatgaaactg gtggcacaga aggtgatcga cacagtgccc ctgggtgagg 780 tggcagagga catgtttggt tacttcgagc ccctgtacca ggtgatccct gacatgccga 840 ggcccccaga gaccttcctg agaagggtca caggttggaa agagcaggtt gtgaatggag 900 atgttggggc tgtttcagag cetecetgee teeccaagga aceggeaeee ecaageeeag 960 agtcccattc acccagggac ctggactccg aggttttctg tgattccctg gagcagctgg 1020 agcctgagct ggtttggaca gagcagcggg cagcatctgg aggaaagcgt gatcccagga 1080 acageceegt geeeceaca aagaaagagg ggttgegggg cageeegeeg gggeeecagg 1140 agttggacgt gtggctgctg gggacagttc gagcactaca ggagagcatg caggaggtgc 1200 aggcgagggt gcagagcctg gagagcatgc cccggccccc tgagcagagg ccgcagccca 1260 ggcccagtgc tcggccatgg ccccttgggc tcccggggcc cgcgctgctc ttcttcctcc 1320 tgtggccctt cgtcgtccag tggctcttcc gaatgtttcg gacccaaaag aggtgactgt 1380 cagtggaggg gtctctgcag ccaactgaga ctatcttgct gtgccctgag ccttcctagg 1440 gtttagaaga acagcattca aaattccccg tcctgtcagt gtttgccttc gcacctcctc 1500 ccctaaagca gcgcggggg caaataagac cccaccctc cctgcagctt cacagggacg 1560 ettecttece teccegeaac caceceagge teccetggga ggetgeagtt gtggtacaeg 1620 tecceggtge tgggttggee gtgaeteggg ggeggggega tegggtetea geecetgeet 1680 tececagtet etgggteace egaattttee cacceetget teteceegag gaggttgage 1740 tettgageaa gttgggaett gggetgggge etggaagaat gattggetgg gaggeegegg 1800 gagggaggcc aggaggcccg gaccagttgg gaggagtgag caggccccgg gggaggggga 1860 tgagegeagt ttgetegett teeteeeetg eeggeeeeet eegeeeeeae acaeaetegg 1920

gaco	tctt	ca t	tgaa	agatt	c ac	ettac	caaag	g gaa	tgtt	tca	ctaa	aataa	aaa 🤉	gaaaa	accag	1979
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Gln	Ala	Ala	Val 20	Ser	Val	Ile	Gln	Asn 25	Leu	Pro	Lys	Asn	Gly 30	Ser	Tyr	
Arg	Pro	Ser 35	Tyr	Glu	Glu	Met	Leu 40	Arg	Phe	Tyr	Ser	Tyr 45	Tyr	Lys	Gln	
Ala	Thr 50	Met	Gly	Pro	Cys	Leu 55	Val	Pro	Arg	Pro	Gly 60	Phe	Trp	Asp	Pro	
Ile 65	Gly	Arg	Tyr	Lys	Trp 70	Asp	Ala	Trp	Asn	Ser 75	Leu	Gly	Lys	Met	Ser 80	
Arg	Glu	Glu	Ala	Met 85	Ser	Ala	Tyr	Ile	Thr 90	Glu	Met	Lys	Leu	Val 95	Ala	
Gln	Lys	Val	Ile 100	Asp	Thr	Val	Pro	Leu 105	Gly	Glu	Val	Ala	Glu 110	Asp	Met	
Phe	Gly	Tyr 115	Phe	Glu	Pro	Leu	Tyr 120	Gln	Val	Ile	Pro	Asp 125	Met	Pro	Arg	
Pro	Pro 130	Glu	Thr	Phe	Leu	Arg 135	Arg	Val	Thr	Gly	Trp 140	Lys	Glu	Gln	Val	
Val 145	Asn	Gly	Asp	Val	Gly 150	Ala	Val	Ser	Glu	Pro 155	Pro	Cys	Leu	Pro	Lys 160	
Glu	Pro	Ala	Pro	Pro 165	Ser	Pro	Glu	Ser	His 170	Ser	Pro	Arg	Asp	Leu 175	Asp	
Ser	Glu	Val	Phe 180	Cys	Asp	Ser	Leu	Glu 185	Gln	Leu	Glu	Pro	Glu 190	Leu	Val	
Trp	Thr	Glu 195	Gln	Arg	Ala	Ala	Ser 200	Gly	Gly	Lys	Arg	Asp 205	Pro	Arg	Asn	
Ser	Pro 210	Val	Pro	Pro	Thr	Lys 215	Lys	Glu	Gly	Leu	Arg 220	Gly	Ser	Pro	Pro	
Gly 225	Pro	Gln	Glu	Leu	Asp 230	Val	Trp	Leu	Leu	Gly 235	Thr	Val	Arg	Ala	Leu 240	

Gln Glu Ser Met Gln Glu Val Gln Ala Arg Val Gln Ser Leu Glu Ser 245 250 255

Met Pro Arg Pro Pro Glu Gln Arg Pro Gln Pro Arg Pro Ser Ala Arg 260 265 270

Pro Trp Pro Leu Gly Leu Pro Gly Pro Ala Leu Leu Phe Phe Leu Leu 275 280 285

Trp Pro Phe Val Val Gln Trp Leu Phe Arg Met Phe Arg Thr Gln Lys 290 295 300

Arg 305

<210> 193

<211> 305

<212> PRT

<213> Homo sapiens

<400> 193

Met Gly Thr Glu Lys Glu Ser Pro Glu Pro Asp Cys Gln Lys Gln Phe
1 5 10 15

Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro Lys Asn Gly Ser Tyr 20 25 30

Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr Ser Tyr Tyr Lys Gln
35 40 45

Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp Pro 50 55 60

Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser Leu Gly Lys Met Ser 65 70 75 80

Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu Met Lys Leu Val Ala 85 90 95

Gln Lys Val Ile Asp Thr Val Pro Leu Gly Glu Val Ala Glu Asp Met 100 105 110

Phe Gly Tyr Phe Glu Pro Leu Tyr Gln Val Ile Pro Asp Met Pro Arg 115 120 125

Pro Pro Glu Thr Phe Leu Arg Arg Val Thr Gly Trp Lys Glu Gln Val 130 135 140

Val Asn Gly Asp Val Gly Ala Val Ser Glu Pro Pro Cys Leu Pro Lys

Glu Pro Ala Pro Pro Ser Pro Glu Ser His Ser Pro Arg Asp Leu Asp 165 170 175

Ser Glu Val Phe Cys Asp Ser Leu Glu Glu Leu Glu Pro Glu Leu Val 180 185 190

Trp Thr Glu Gln Arg Ala Ala Ser Gly Gly Lys Arg Asp Pro Arg Asn 195 200 205

Ser Pro Val Pro Pro Thr Lys Lys Glu Gly Leu Arg Gly Ser Pro Pro 210 215 220

Gly Pro Gln Glu Leu Asp Val Trp Leu Leu Gly Thr Val Arg Ala Leu 225 230 235 240

Gln Glu Ser Met Gln Glu Val Gln Ala Arg Val Gln Ser Leu Glu Ser 245 250 255

Met Pro Arg Pro Pro Glu Gln Arg Pro Gln Pro Arg Pro Ser Ala Arg
260 265 270

Pro Trp Pro Leu Gly Leu Pro Gly Pro Ala Leu Leu Phe Phe Leu Leu 275 280 285

Trp Pro Phe Val Val Gln Trp Leu Phe Arg Met Phe Arg Thr Gln Lys 290 295 300

Arg 305

<210> 194

<211> 533

<212> PRT

<213> Bos taurus

<400> 194

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys 1 5 10 15

Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg 20 25 30

Leu Glu Met Arg His Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala

Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro 50 55 60

Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr

Glu	Gly	Pro	Cys	Lys 85	Leu	Ser	Lys	Pro	Gly 90	Phe	Trp	Asp	Pro	Val 95	Gly
Arg	Tyr	Lys	Trp 100	Asp	Ala	Trp	Ser	Ser 105	Leu	Gly	Asp	Met	Thr 110	Lys	Glu
Glu	Ala	Met 115	Ile	Ala	Tyr	Val	Glu 120	Glu	Met	Lys	Lys	Ile 125	Leu	Glu	Thr
Met	Pro 130	Met	Thr	Glu	Lys	Val 135	Glu	Glu	Leu	Leu	His 140	Val	Ile	Gly	Pro
Phe 145	Tyr	Glu	Ile	Val	Glu 150	Asp	Lys	Lys	Ser	Gly 155	Arg	Ser	Ser	Asp	Leu 160
Thr	Ser	Val	Arg	Leu 165	Glu	Lys	Ile	Ser	Lys 170	Cys	Leu	Glu	Asp	Leu 175	Gly
Asn	Val	Ŀeu	Ala 180	Ser	Thr	Pro	Asn	Ala 185	Lys	Thr	Val	Asn	Gly 190	Lys	Ala
Glu	Ser	Ser 195	Asp	Ser	Gly	Ala	Glu 200	Ser	Glu	Glu	Glu	Ala 205	Ala	Gln	Glu
Asp	Pro 210	Lys	Arg	Pro	Glu	Pro 215	Arg	Asp	Ser	Asp	Lys 220	Lys	Met	Met	Lys
Lys 225	Ser	Ala	Asp	His	Lys 230	Asn	Leu	Glu	Ile	Ile 235	Val	Thr	Asn	Gly	Tyr 240
Asp	Lys	Asp	Ser	Phe 245	Val	Gln	Gly	Val	Gln 250	Asn	Ser	Ile	His	Thr 255	Ser
Pro	Ser	Leu	Asn 260	Gly	Arg	Cys	Thr	Glu 265	Glu	Val	Lys	Ser	Val 270	Asp	Glu
Asn	Leu	Glu 275	Gln	Thr	Gly	Lys	Thr 280	Val	Val	Phe	Val	His 285	Gln	Asp	Val
Asn	Ser 290	Asp	His	Val	Glu	Asp 295	Ile	Ser	Gly	Ile	Gln 300	His	Leu	Thr	Ser
Asp 305	Ser	Asp	Ser	Glu	Val 310	Tyr	Cys	Asp	Ser	Met 315	Glu	Gln	Phe	Gly	Gln 320
Glu	Glu	Ser	Leu	Asp 325	Gly	Phe	Ile	Ser	Asn 330	Asn	Gly	Pro	Phe	Ser 335	Tyr
Tyr	Leu	Gly	Gly 340	Asn	Pro	Ser	Gln	Pro 345	Leu	Glu	Ser	Ser	Gly 350	Phe	Pro
Glu	Ala	Val 355	Gln	Gly	Leu	Pro	Gly 360	Asn	Gly	Ser	Pro	Glu 365	Asp	Met	Gln
Gly	Ala	Val	Val	Glu	Gly	Lys	Gly	Glu	Val	Lys	Arg	Gly	Gly	Glu	Asp

Gly Gly Ser Asn Ser Gly Ala Pro His Arg Glu Lys Arg Ala Gly Glu 385 390 395 400

Ser Glu Glu Phe Ser Asn Ile Arg Arg Gly Arg Gly His Arg Met Gln
405 410 415

His Leu Ser Glu Gly Ser Lys Gly Arg Gln Val Gly Ser Gly Gly Asp 420 425 430

Gly Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu 435 440 445

Gln Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val 450 455 460

Leu Gln Arg Leu His Lys Leu Glu Met Leu Ala Ala Ser Gln Ala Lys
465 470 475 480

Ser Ser Ala Leu Gln Thr Ser Asn Gln Pro Thr Ser Pro Arg Pro Ser 485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Ala Leu Thr Phe Ala Ile Ile 500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val His Leu Tyr Tyr Gln Arg Arg 515 520 525

Arg Arg Lys Leu Asn 530

<210> 195

<211> 195

<212> PRT

<213> Homo sapiens

<400> 195

Met Asn Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser 1 5 10 15

Met Asn Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys
20 25 30

Leu Lys Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn 35 40 45

Met Pro Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp 50 55 60

Ala Trp Asn Ala Leu Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro 120 Lys Lys Lys Asn Ala Ile His Thr Glu Met Tyr His Glu Ile Met Arg 135 Ala Leu Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr 145 Gly Asn Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr 170 Asp Ile Pro Pro Gly Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg 195 <210> 196 <211> 89 <212> PRT <213> Homo sapiens <400> 196 Leu Gln Glu Asp Phe Glu Ala Ala Glu Lys Val Lys Leu Lys Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro 35 Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu 60 Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys

Val Glu Glu Leu Ile Ala Lys Tyr Ala

<210> 197

<211> 88

<212> PRT

<213> Homo sapiens

<400> 197

Cys Gln Lys Gln Phe Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro 1 5 10 15

Lys Asn Gly Ser Tyr Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr 20 25 30

Ser Tyr Tyr Lys Gln Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro 35 40 45

Gly Phe Trp Asp Pro Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser 50 55 60

Leu Gly Lys Met Ser Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu 65 70 75 80

Met Lys Leu Val Ala Gln Lys Val 85

<210> 198

<211> 20

<212> PRT

<213> Homo sapiens

<400> 198

Gln Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp 1 5 10 15

Pro Ile Gly Arg

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<210> 199

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<220>	
<223> Description of Artificial Sequence: synthetic	
construct; chemically synthesized	
<400> 199	
ataagacata cagaaggaat gcctgga	27
<210> 200	
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<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
construct; chemically synthesized	
<400> 200	
tataagacat acagaaggaa tgcctgg	27
<210> 201	
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<223> Description of Artificial Sequence: synthetic	
construct; chemically synthesized	
<400> 201	
ggtggtaaat gctccttttg tttgttt	27
<210> 202	
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<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
construct; chemically synthesized	
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<400> 202	
acatcaagtt aacagtatgc ctctccc	27

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27